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A Weekly Newspaper Devoted to the Industrial, Financial, Railroad, Mining, Contracting, Engineering, Building, and General Business Interests of the South and Southwest

Vol. 67
No. 20

ESTABLISHED 1882

00 Per Year
Sin opy 15 Cents

Adequate Transportation Facilities Essential to the Country's Prosperity.

A Suggestion as to Co-operative or Corporate Agricultural Operations.

Completion of a $15,000,000 Waterway Project in Alabama.

Indications of a Revival of Activities in the South.

BALTIMORE, MAY 20, 1915

Classified Index, Pages 100 to 105. Alphabetical Index, Page 106. Classified Opportunities, Pages 68 and 69.

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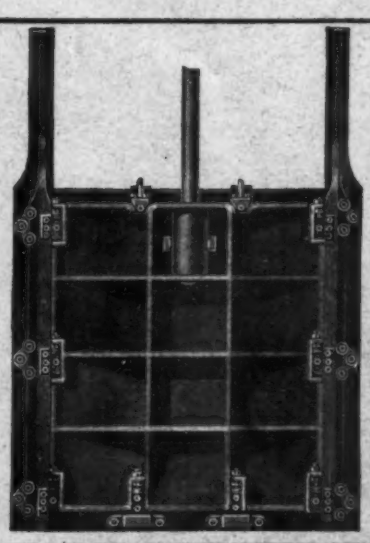

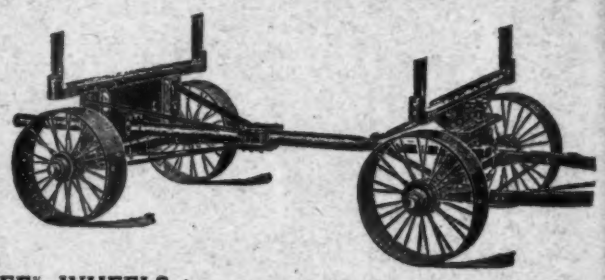

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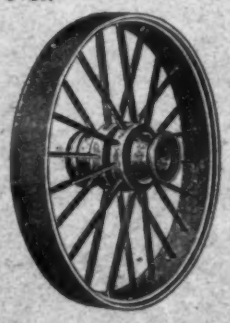

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..... (1952)

How Many Hides Has a Cow?

For shoe soles, one.

But a cow's hide, being too thick and stiff for upholstery, is split into at least three sheets, only the top one of which is natural leather. The lower, fleshy splits, after being coated and embossed to look like leather, and which make up 75% of all so-called leather upholstery, are really leather substitutes of quality inferior to

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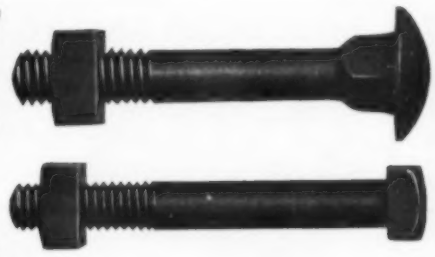

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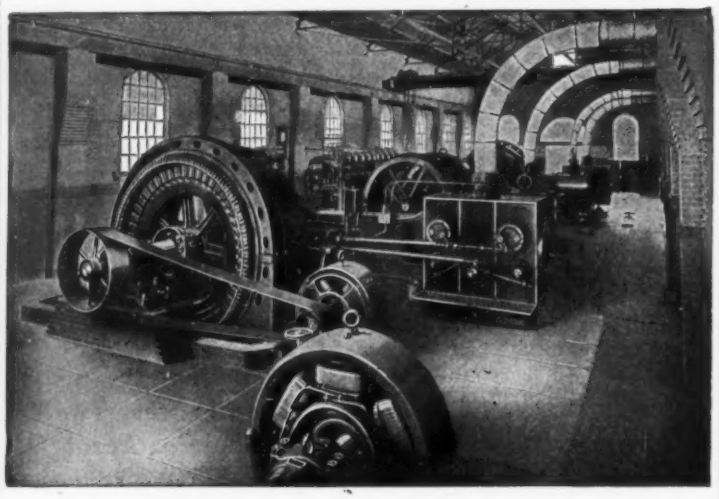

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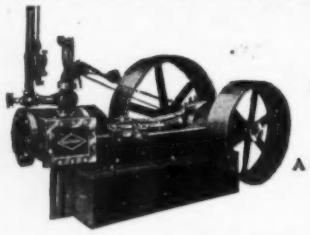

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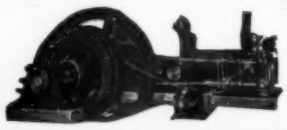

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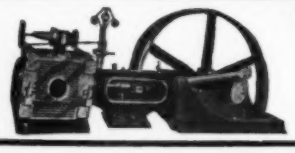

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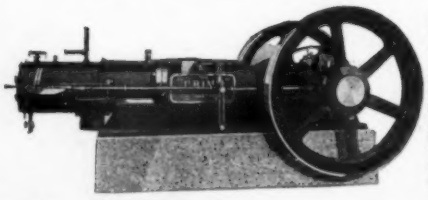

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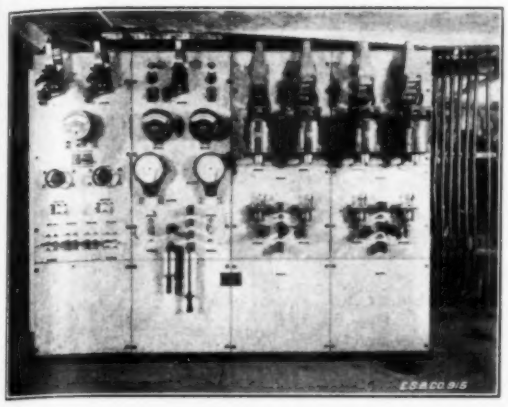

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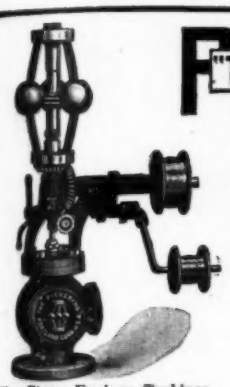

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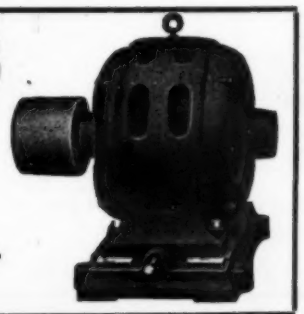

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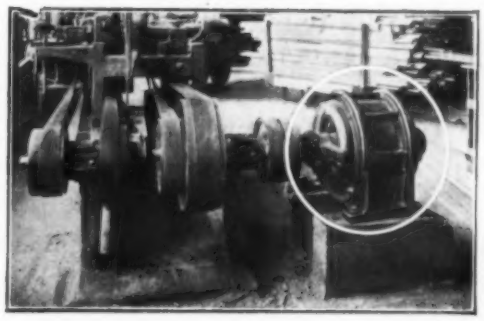

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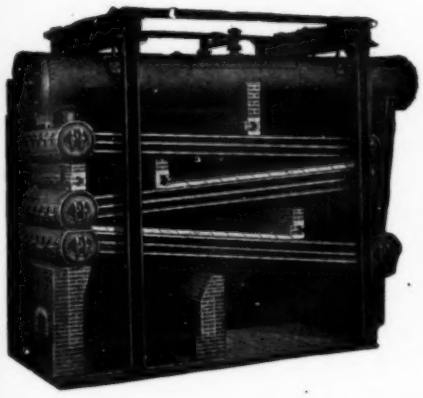

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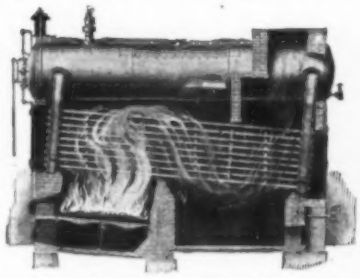

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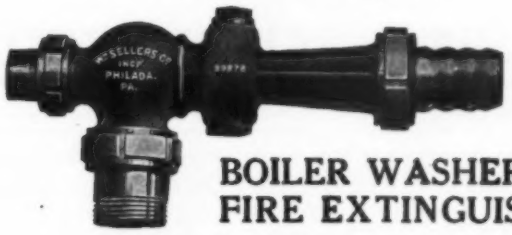

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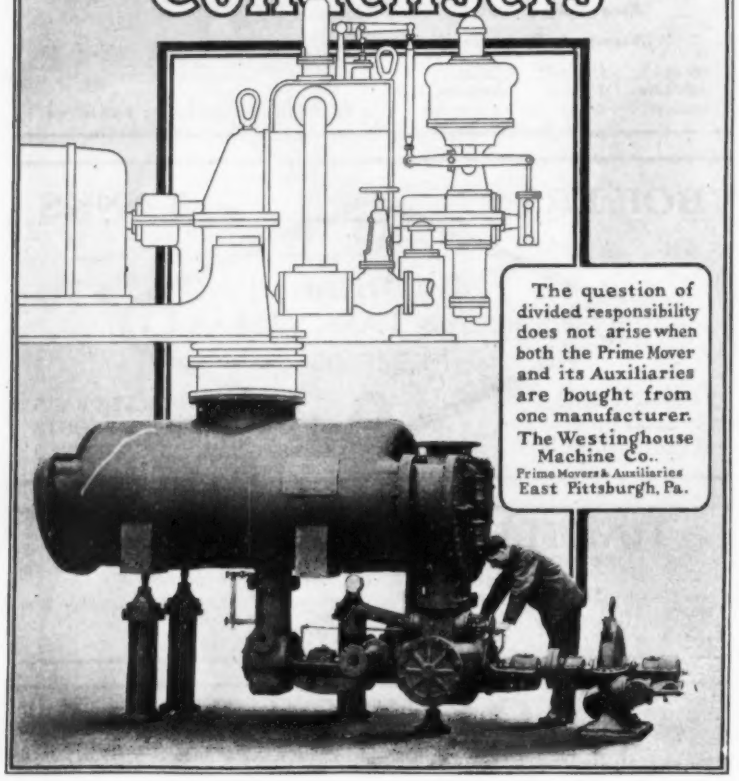
Westinghouse Surface Condensers



The question of divided responsibility does not arise when both the Prime Mover and its Auxiliaries are bought from one manufacturer.
The Westinghouse Machine Co.
Prime Movers & Auxiliaries
East Pittsburgh, Pa.

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OIL and GREASE CUPS

OIL CUPS with ***glass*** *or* ***brass*** *body, with or without sight feed.*

For *power* and *transmission* bearings.

A variety of designs covering all requirements.

Practically designed and substantially constructed to give long and satisfactory service.

GREASE CUPS of ***brass, iron*** *or* ***steel****; plain, screw feed and automatic.*

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"QUALITY"

Largest Manufacturers of High Grade Engineering Specialties in the world

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COUNTER-CURRENT CONDENSER

Simple in Construction,
Simple to Install,
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Maintain high vacuum with low cost of upkeep.

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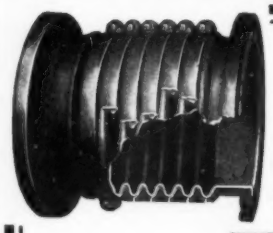

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Of course you must have an expansion joint in that steam pipe, but why get one that calls for almost daily attention—one that must be packed to keep it from leaking?

The Badger
Self-Equalizing Expansion Joints

requires no attention, takes no packing, is always tight—it's a snap for the engineer. The Badger is made of one piece of copper, with rings to equalize the expansion. It's corrugated—abundantly strong. It takes no valuable space—it's smaller than a flange fitting. Tell us your conditions. Write for new free catalog

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Find out all of the advantages and economies of the Huber Hand Stoker. Write today for complete data.
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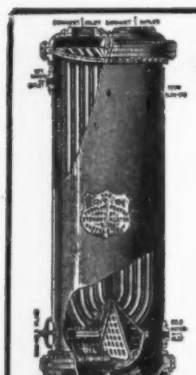

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which is fine testimony for the Otis Heater. Within the last 23 years the Barber Asphalt Paving Company of New York City has installed forty heaters in their different Steam Plants. The Otis Heater saves the waste. That's the reason.

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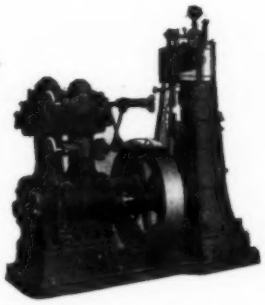

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But success depends in a large measure on the selection of the *right type* of plant, *properly designed.*

First aid in *these* important matters can be had by consulting the YORK Organization, who will help you to select the right type of plant for your business, and continue to serve you well after your plant is installed.

We make a specialty of designing and building Refrigerating and Ice Making Plants, and devote our entire efforts to that one thing.

It will be to you interest to get our prices and the benefit of our experience.

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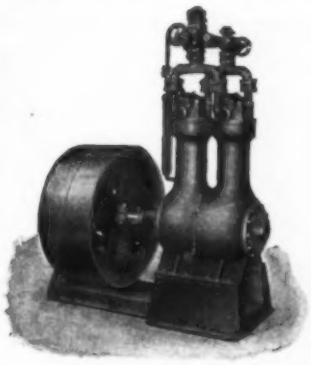

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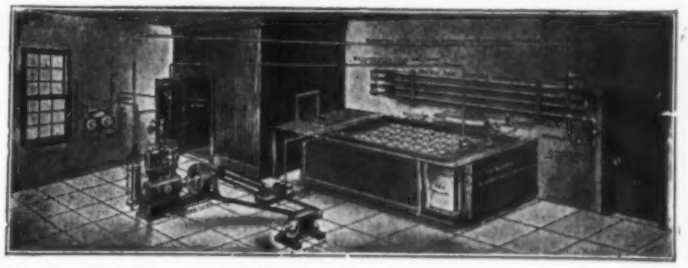

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Portable Ice Plants, 300 pounds to 1000 pounds capacity.
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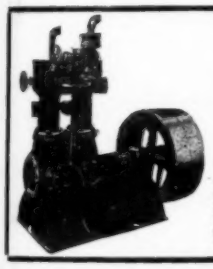

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Sizes from 1 to 10 tons.

Positively the most simple, the strongest and most modern type of Small Refrigerating Machines. Improved by simplicity of construction and operation right up to October, 1914.

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Refrigerating and Ice Making Machines, **Detroit, Michigan**

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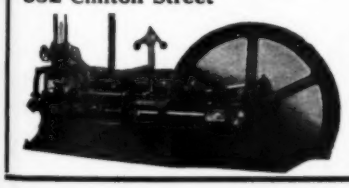

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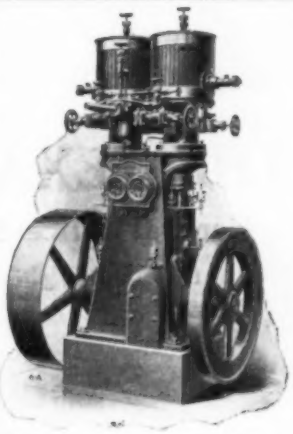

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Refrigerating Machines

have so many good features and give such satisfactory service that users constantly acknowledge **Frick** the most desirable refrigerating machine on the market.

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Starrett Hack Saws were developed by us to solve our own saw problems in our tool factory. They proved so superior that we decided to market them. You will find that the name "Starrett" on them is as great a protection as it is on fine tools

There is a Starrett saw for every purpose. Write for free catalog No. 20 E. C., describing 2100 styles and sizes of fine tools and hack saws.

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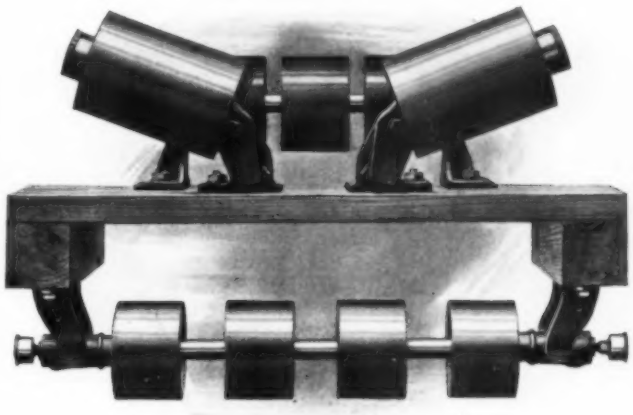
World's Greatest Toolmakers 42-444

¶ The average conveyor belt is worn out *more* by its rollers than by the material it carries. This is mainly because of too steep troughing angles, openings at the troughing points, rigid bearings, poor lubrication, etc.



The Main Belting Company's Adjustable Troughing Roller for Conveyors

combines the good features of all other rollers and has the weaknesses of none of them. Note these advantages clearly and you will see why it will save your belts and reduce your conveyor cost.

The maximum troughing angle is 20 . The troughing angle is adjustable. There is no groove or opening at the troughing point. The bearings are self-adjusting. A large portion of the belt width runs flat. The lubrication is practical and positive. The rims of the troughing pulleys are reinforced. The rollers are ample in width for the belt. Shafting $1\frac{3}{16}$ inches diameter is used even in the smaller sizes. All pulleys are 6 inches diameter, with turned surfaces. The principal parts are the same for all sizes, and are interchangeable.

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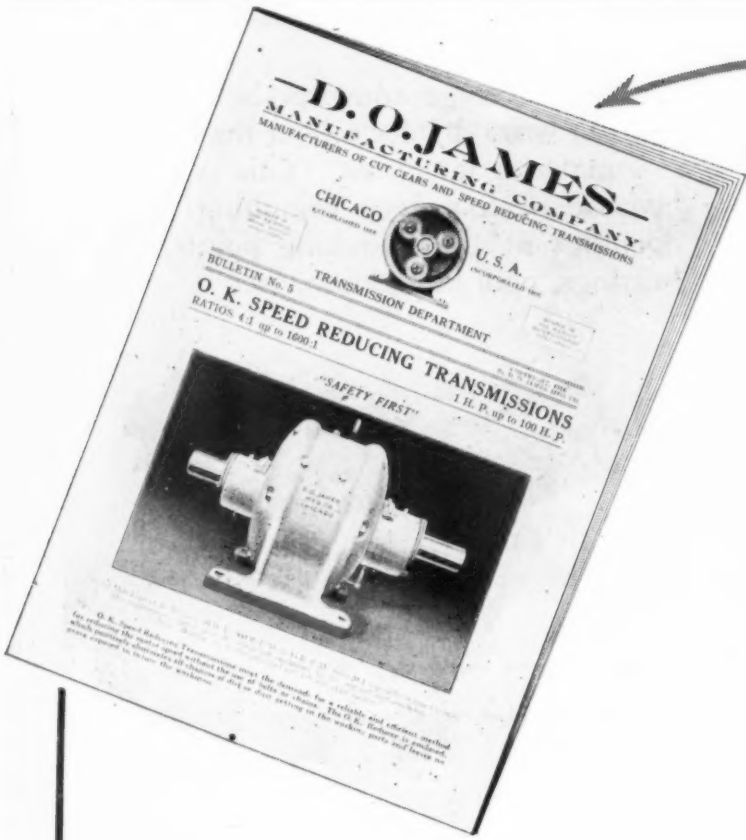

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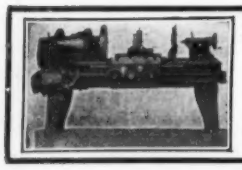

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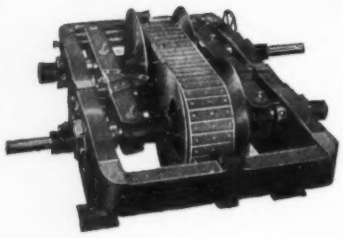

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Advantages of the Reeves Way:
Saves time wasted in belt shifting, etc. Allows running of machine at speed wanted and changing speed without stopping. Saves expenses, trouble and worry, etc.

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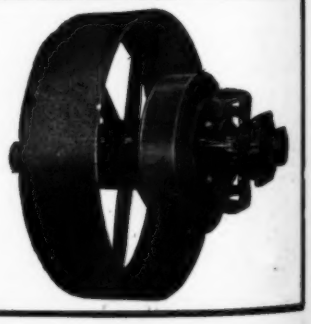

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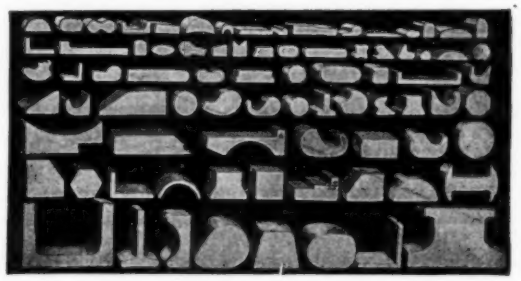

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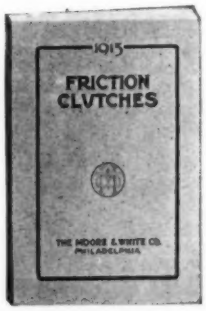

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is the result of years of experience. Is especially economical in first cost and upkeep. It eliminates the continuous trouble and expense sometimes experienced when an inferior Rope Transmission is used. Our engineers are always ready to suggest the best solution of your problem. Write us today—it will put you under absolutely no obligation.

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The sales force of the Chas. A. Schieren Co. are instructed to stick carefully to facts, because the actual truth about Duxbak Waterproof Leather Belting gives our strongest selling points.

Try one small Duxbak Belt and see how belting has improved.

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Transmits more power than any other Canvas Stitched. Fully Guaranteed.

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We figure that our reputation as mill builders can be maintained only by continuing to give the same excellent services in the future that we have given in the past.

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Get this Book on Transmission

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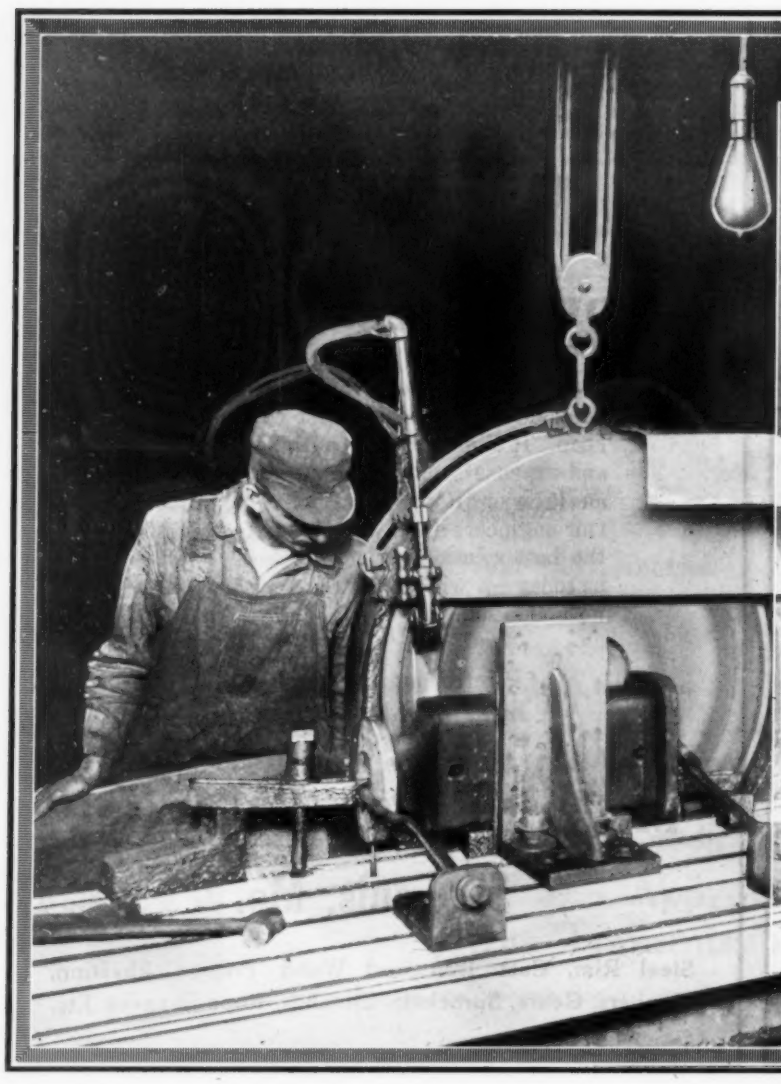

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A Carborundum service man studied the grinding conditions and specified a Carborundum wheel of a definite grit and grade.

Now, with the right wheel in the right place, they are grinding 3,900 castings under the same conditions.

The Carborundum Wheel cuts faster, cleaner, shows longer life.

Carborundum Service will help you to better bigger grinding results

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That is why they are getting Ridgway Steam Hydraulic Elevators.

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When they adopted Ridgway Elevators they knew what they were doing.

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Cost of "juice" for operating one electric elevator..$25 per month
Cost of steam for operating one Ridgway elevator..$00 per month
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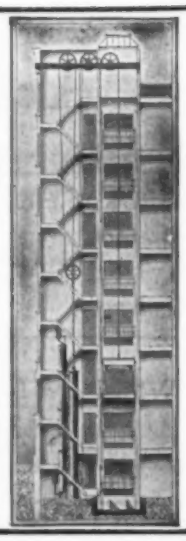

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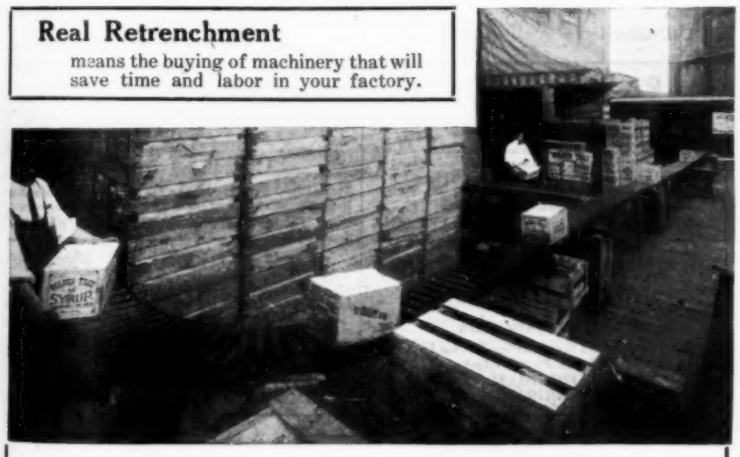

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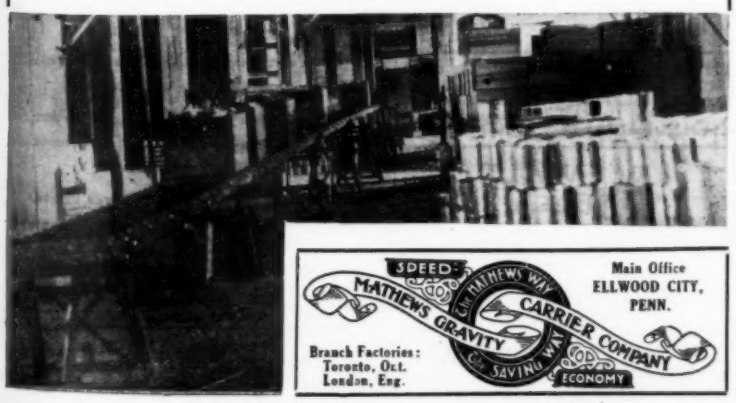

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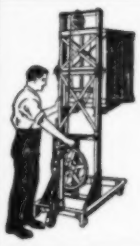

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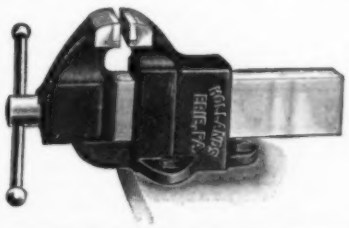

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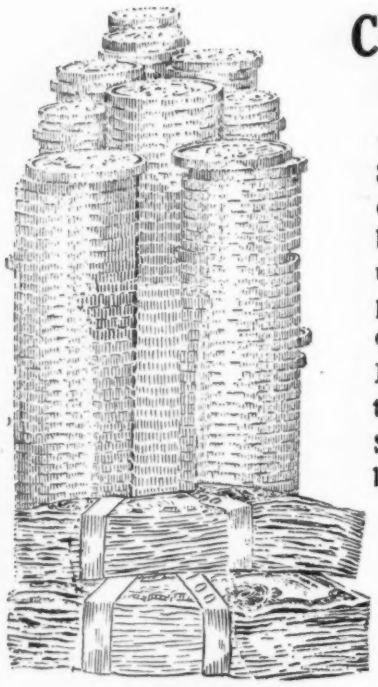

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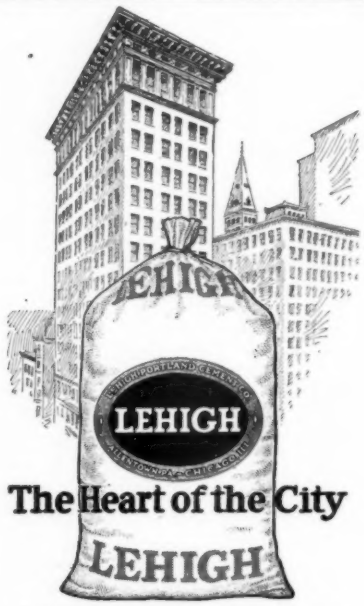

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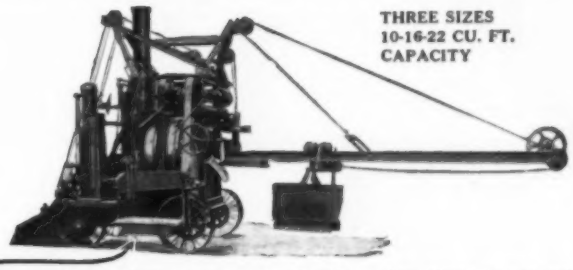

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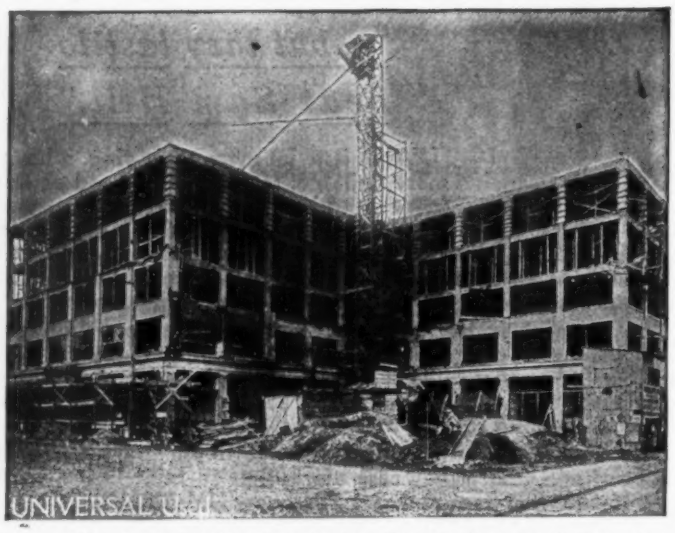

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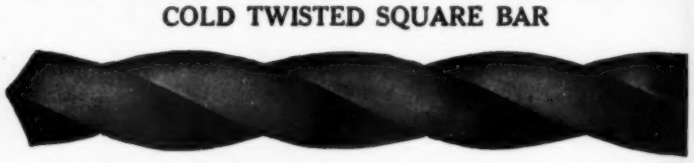

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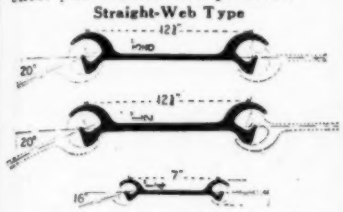
Straight-Web Type

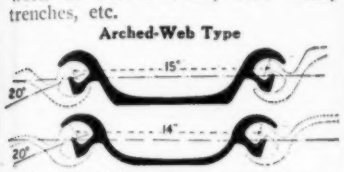


Suitable for general work and especially constructions requiring high tensional and compressive resistance of the pile section. The smallest size is much superior to wooden sheeting in sewer and trench work.

Plate Type

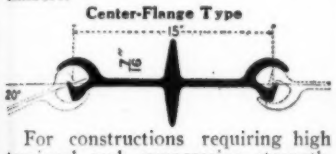
For light cofferdams, permanent work in cut-off walls, core walls, trenches, etc.

Arched-Web Type



Preferable where transverse strength of the pile is of primary importance, as in braced or tied constructions. A wall of this piling is very thin in proportion to its transverse strength, having no greater thickness over all at the centers of the arches than the over-all thickness of the interlocked joints. Flattening the back of the web furnishes a long, straight contact with the waling timbers.

Center-Flange Type



For constructions requiring high tensional and compressive strength, in connection with a fairly high transverse strength. The center-flange acts as a stiffener, increases the section modulus and furnishes means for attaching transverse ties, braces, etc.

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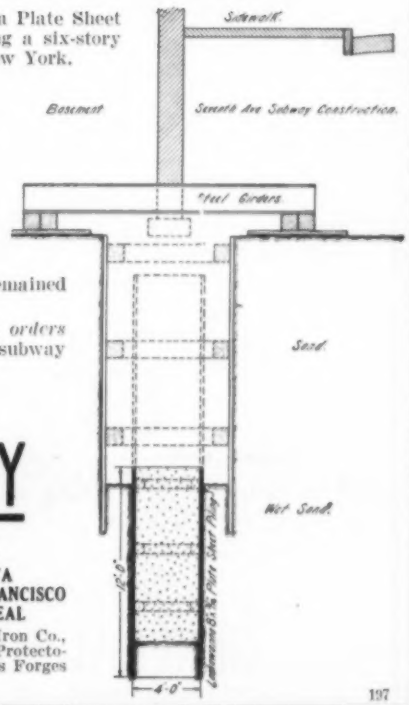
The pictures and sketch show first cofferdam driven. *Five repeat orders have since been received.* The success of this type in underpinning and subway construction speaks for itself.

Have you read our Plate Sheet Piling Bulletin No. 107?



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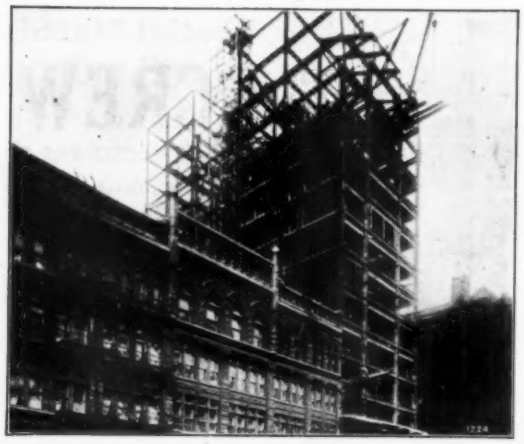

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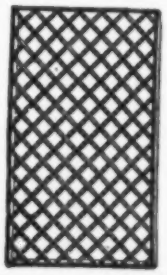

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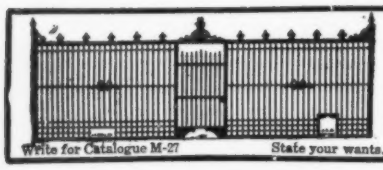

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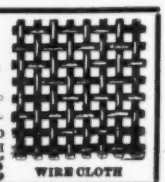

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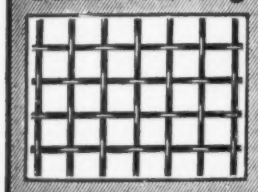

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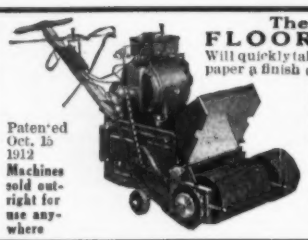

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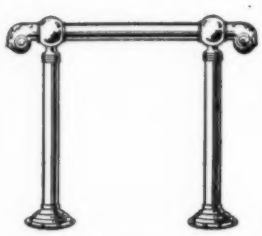

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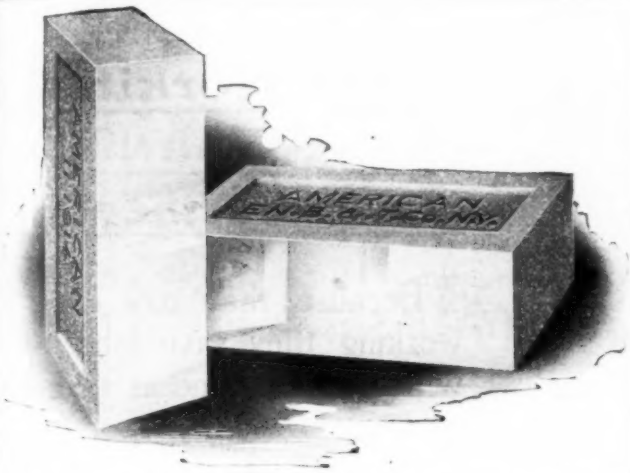

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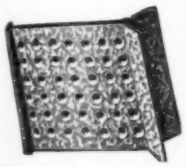

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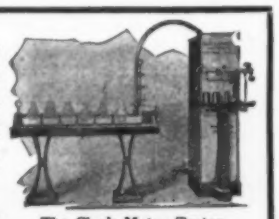

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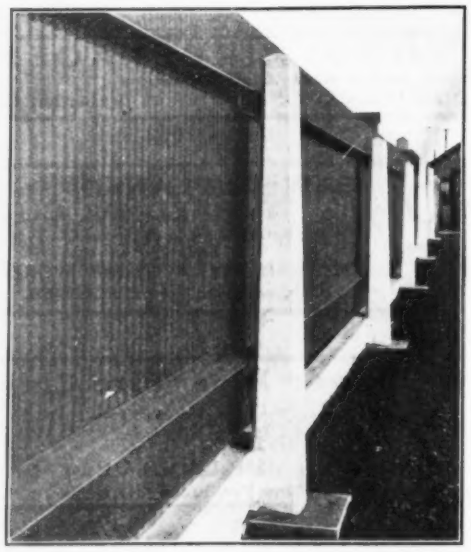

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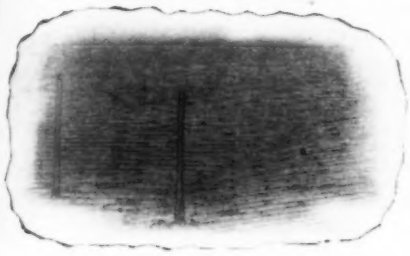

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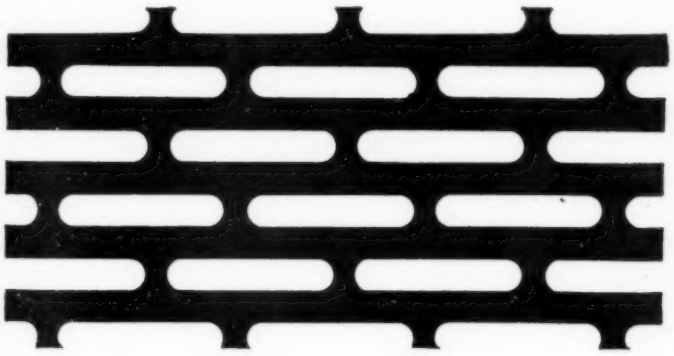

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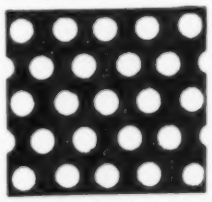

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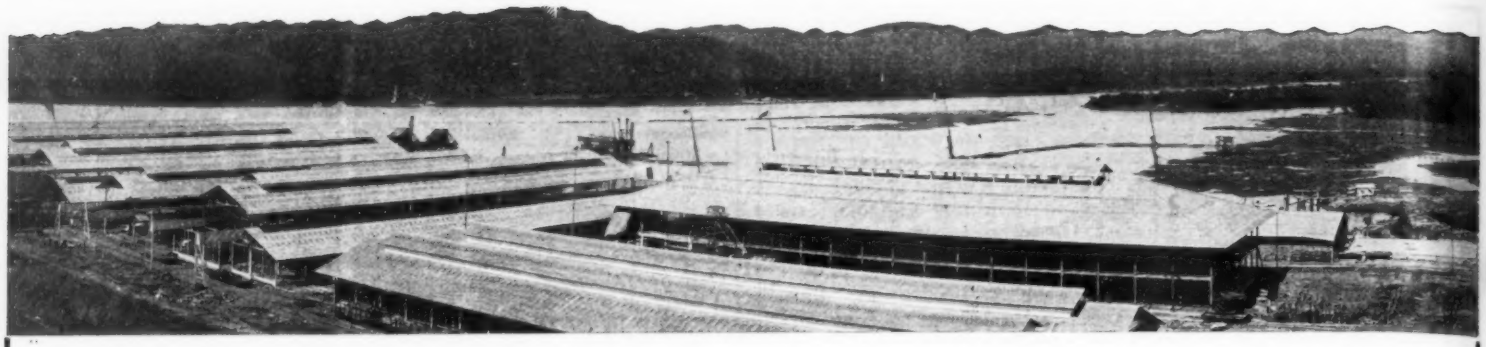

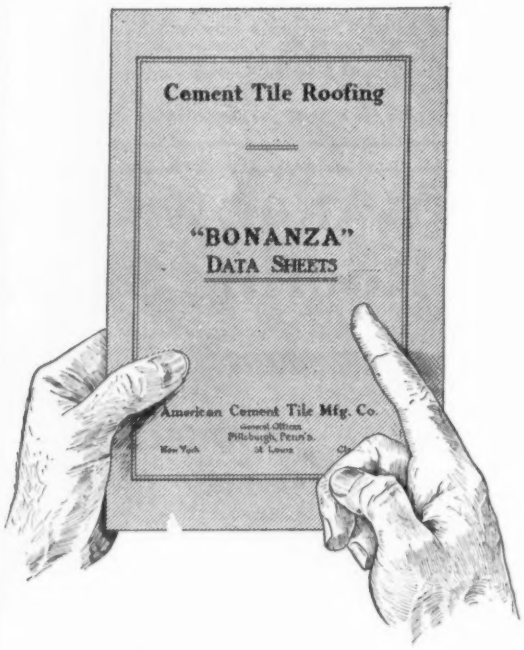

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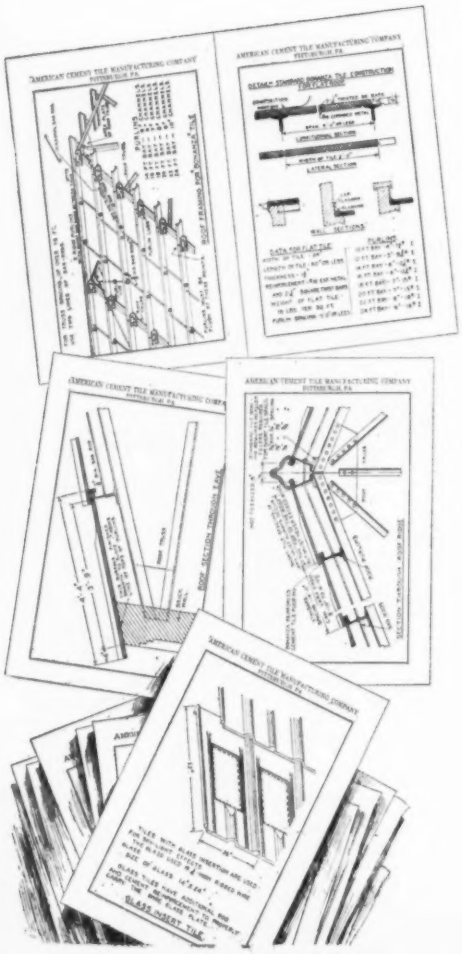

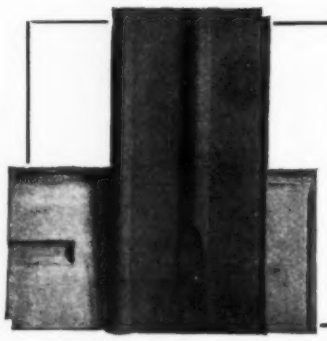

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Channel purlins spaced four feet apart.

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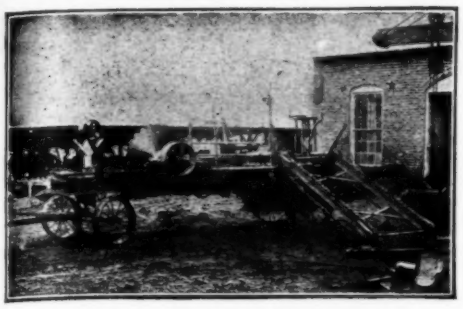

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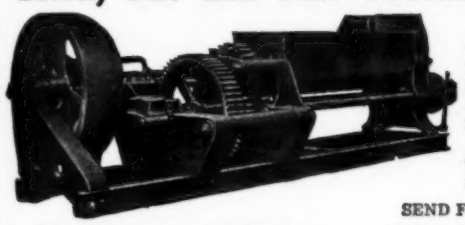

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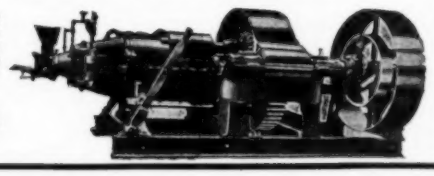

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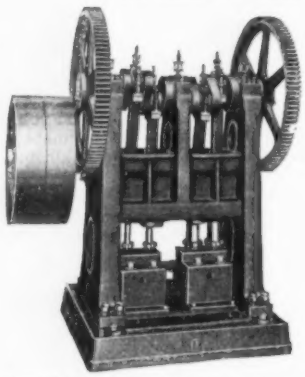

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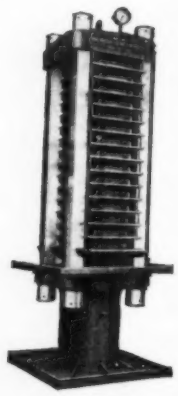
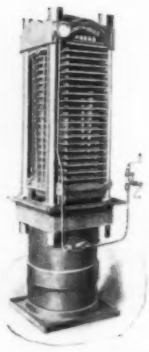


Steel Press

Smith-Vaile

Cottonseed Oil Presses



are fitted with built-up indestructible all-steel boxes, designed so that the boxes can come together empty, under full pressure, without damage.

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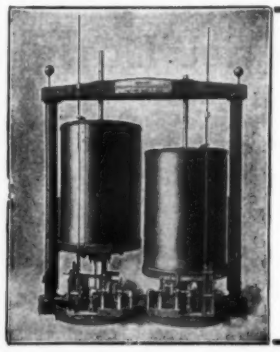

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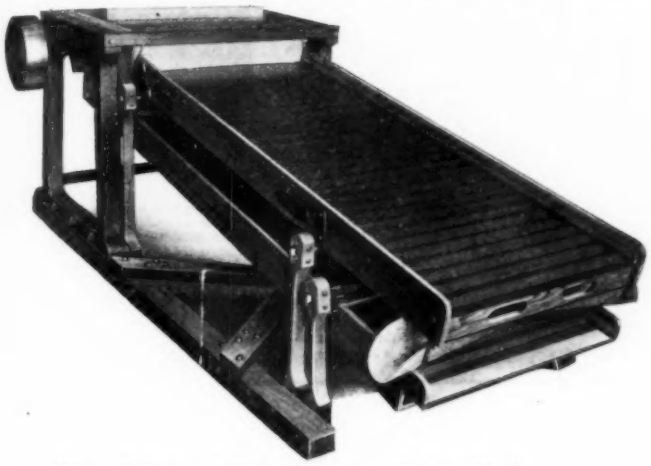

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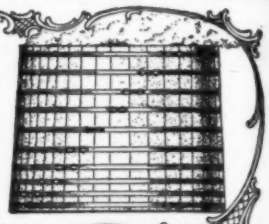

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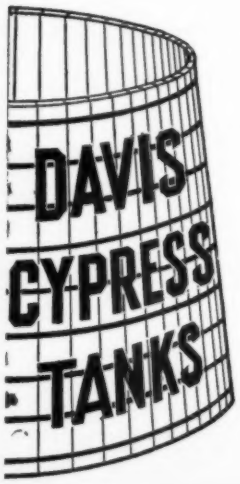

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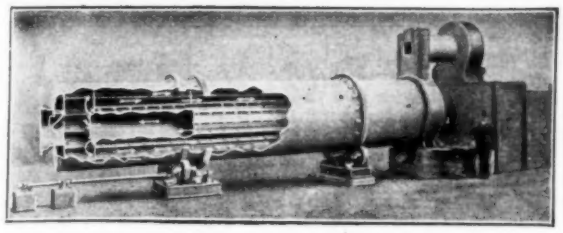

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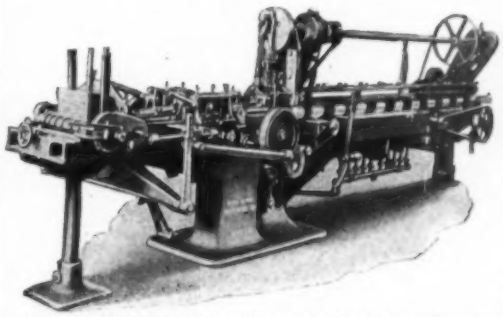

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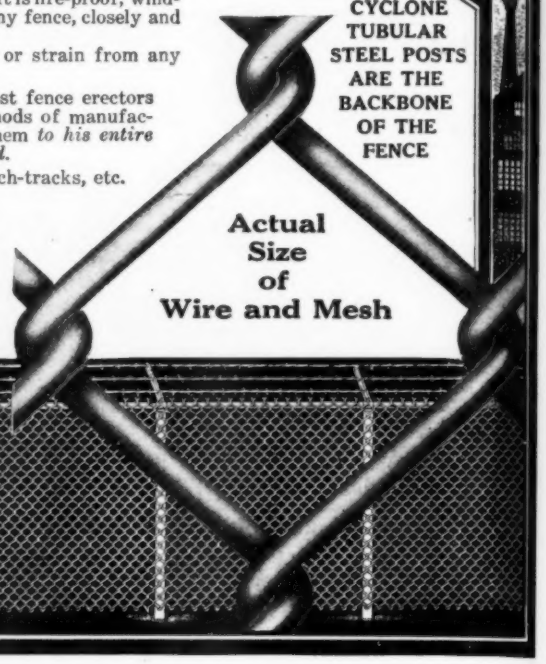

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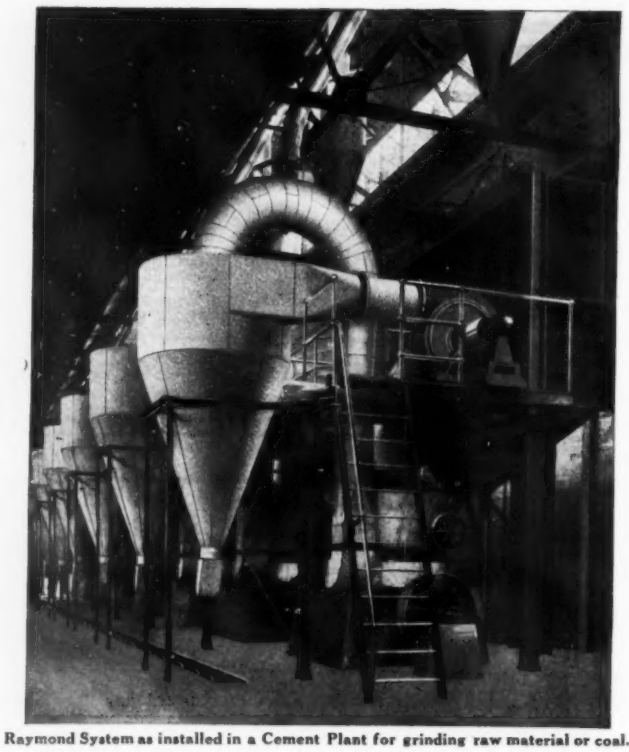

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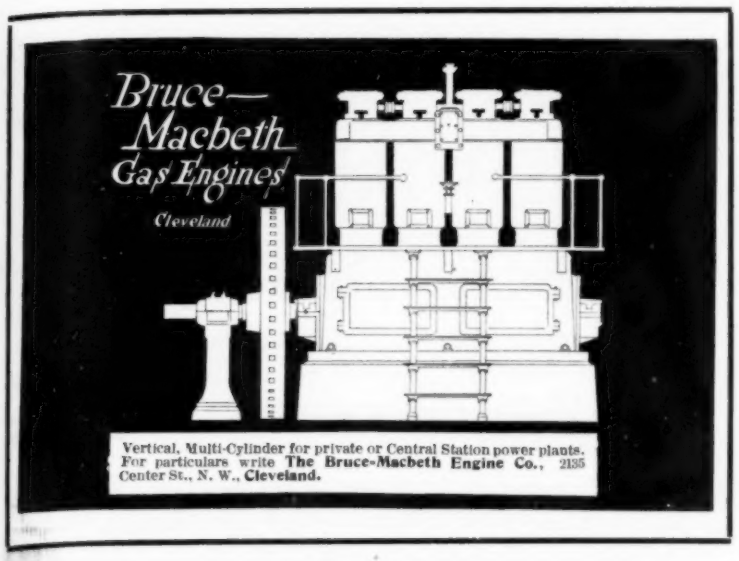

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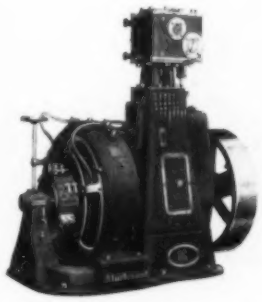

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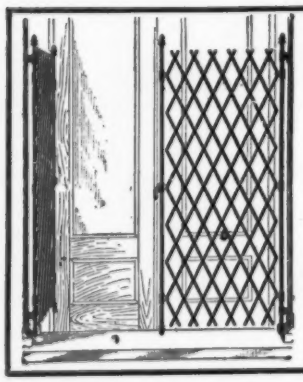

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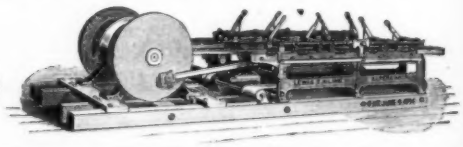

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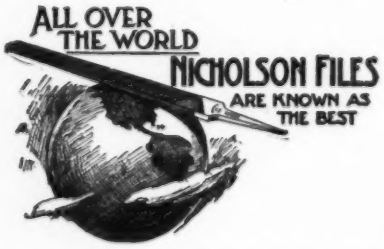

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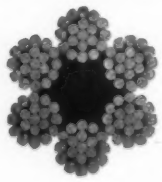

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MANUFACTURERS RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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THE COUNTRY WITH PRESIDENT WILSON

PROBABLY no other President of the United States ever had more general or more enthusiastic support by the whole country, regardless of party lines, than that given President Wilson in his attitude for the country taken in the latest note from the administration as to the treatment demanded for non-combatants in the European war. Without threats or bluster, without a single suggestion of hatred, but with the consideration and courtesy of the Christian gentleman, realizing in full the responsibility of the occasion, President Wilson has stated the case, and the nation stands calm and determined by him.

TRANSPORTATION THE KEY TO PROSPERITY.

F. J. LISMAN of F. J. Lisman & Co., bankers, New York, who has deep concern in the prosperity of the South, in addition to business interests connected with that section, is convinced that progressive men of the South should be alive to the necessity for greater railway facilities in that section. In a letter to the MANUFACTURERS RECORD, discussing the question as to whether the period of railway construction is pretty well finished, he says:

Let us compare the three Northern States of Ohio, Indiana and Illinois with the three Southern States of Alabama, Georgia and Mississippi. Alabama has more natural resources than Ohio, and the other two Northern and Southern States fairly balance in natural resources:

	Population.	Area square miles.	Railroad mileage.	No. of miles per 100 square miles territory.
Ohio	4,767,121	41,040	9,117	22.24
Indiana	2,700,876	36,354	7,461	20.50
Illinois	5,638,591	56,665	12,013	21.22
Alabama	2,138,093	51,998	5,396	10.34
Georgia	2,609,121	59,265	7,404	12.50
Mississippi	1,797,114	46,865	4,486	9.56

It will be noted that the Southern States have not quite half the railroad mileage which the Northern States have, in spite of the fact that a larger percentage of their land is capable of agricultural development and that climatic conditions would also appear more favorable for the development of the Southern States.

Since 1880 the single-track length of railways in the South has been increased by 68,730 miles to 93,596 miles, a mileage greater than that of the whole country in 1880. There were built in the South 25,484 miles of railway between 1880 and 1890, an average of 2548 miles a year. In the next decade, embracing a period of financial and industrial depression, the average annual building was 1153 miles, and between 1900 and 1910 the average was 2521 miles a year. In the past four years 6506 miles have been built, or an average of 1627 miles a year. In the past ten years 21,564 miles have been built, an average of 2156 miles a year. Those ten years have been marked by wide fluctuations in the annual mileage of railroad construction in the country, and particularly in the South, which, in proportion to the population, had in twenty-five years after 1880 been a greater railroad builder than the rest of the country, such construction in the South reaching 4100 miles in 1902. Since 1905 the greatest annual construction in that section was 3331 miles in 1907. In the following year, in consequence of the financial depression of the winter of 1907-08, only 1761 miles of railroad were built in the South, and the greatest construction in any year since then was 2048 miles in 1910, the amount of such work done in each year since 1910 having been 1815 miles in 1911, 2027 miles in 1912, 1754 miles in 1913 and only 911 miles in 1914. The fluctuations since 1907 do not indicate that the railroad equipment of the South, even in the matter of single-trackage, had by any means reached its necessary limits, or that double-tracking, increased locomotive power, enlargement of car capacity and betterment of terminal facilities had reached sufficiency. They reflect the financial, economic, political and social agitations and other manifestations which have been so pronounced in this country in the past ten or twelve years, and the culmination of movements which, increasing by legislation or otherwise the necessity for greater expenditures by the railroads, and, at the same time, tending to reduce the income of the railroads, had cultivated among investors a spirit of extreme caution in investing in railroad enterprises. The result has been the inability not only to undertake entirely new railroad construction, but also to maintain existing facilities at their maximum. In an address at Birmingham last week United States Senator Oscar W. Underwood epitomized the situation from the standpoint of an expert in legislation when he said that the country is suffering under the present system of uncertainty and ever-threatening interference with railroad operations, and added:

This problem of transportation should be worked out on a scientific and fair basis and settled permanently so that all interests may know what to depend upon.

We can never have permanent prosperity in this country until we have solved this question. We must make it possible for railroad securities to be sold on reasonable terms for the interest of all business. The best of our railroads are operating on reduced capacity and run-down equipment. They are unable to keep up the equipment they have on account of the uncertainties of the present system of public harassment.

Adequate freight rates should be allowed the railroads that they may be able to sell their securities to advantage and be able to keep the proper equipment for the ready dispatch of business. Transportation is the key to business prosperity.

Senator Underwood suggested as a means of solving this far-reaching problem the appointment of a commission to investigate the transportation situation, so as to get at the facts that would be a basis for intelligent action. Senator Underwood is exactly right in the statements as to existing conditions which he has made with such statesmanlike breadth of view. But the MANUFACTURERS RECORD believes that had he fully weighed all the factors contributing to existing conditions he would have been slow to advocate anything like another commission as a possible aid to a restoration of the normal. Investigations by commissions or committees in the past decade, abused as they have been and as they are now being abused by men given temporary notoriety as members of them, and revealing incompetency for any task save that of attempting to turn a seeking for facts into personal or partisan propaganda, have nevertheless brought about an accumulation of facts having official standing sufficient in volume and character to guide any intelligent member of the Congress in performing his duty to the country by working out the problem in a non-partisan way, as Senator Underwood believes it should be worked out. There are commissions already in action and the State bureaus charged specifically with the gathering of all the facts bearing upon the subject. It is believed that Senator Underwood is well equipped to handle those facts to the proper solution of the problem, and that the only education needed in the premises is the emphasizing, for the benefit of the voters who send men to Congress and other legislative bodies, that transportation is the key to business prosperity, that money is not something to be picked off the curbstone or out of the air, that even if capital could be thus easily acquired, no possessor of capital can be compelled, short of forcible confiscation, to invest his money in a losing proposition. One of the weakest points in Senator Underwood's address is the following:

The commission, if apointed, should continue its labors until after the next Presidential campaign, so that the issues would not become involved. It should remain in session for one year or eighteen months.

This suggestion was intended to further the idea of non-partisanship in handling the question. But the question is not a party one in being monopolized one way or another by any of the great political parties of the country. None of them has clean skirts in this particular. It is for the people of the country, without regard to party affiliations, to let representatives of all parties understand that they cannot continue to harass deliberately the agencies essential to the progress and prosperity of the country or to make even honest mistakes in dealing with the question. Facts abound for the safe guidance of honesty and intelligence in action, and that action should be not more legislation, but a repeal of much of the legislation that has become effective in the past ten years. It is of greater importance to the South than any other part of the country that such a policy should prevail. For upon adequate railroad facilities and adequate service, which the railroads cannot give while they are hampered as they are, depends the full development of the natural resources of the South and the prosperity and happiness of its people.

FOR THE IMPROVEMENT OF SOUTHERN AGRICULTURE.

CO-OPERATIVE farming or corporate farming on a large scale in certain sections of the South seems to offer a profitable solution of a number of problems that are at present drawbacks upon the full agricultural development of that section. Its plantations and farms now produce annually to a value of $3,600,000,000 in normal times. If not a single acre were added to the 115,000,000 or 120,000,000 acres of Southern farms devoted to the various crops of field and orchard, but if every acre so used were made to yield its best, the annual value of agricultural production in the South would easily be $7,500,000,000. There are 200,000,000 acres available for additional farm lands. If these additional acres, together with those now cultivated, should be handled to the best advantage, the annual agricultural production of the South would be double the present $10,000,000,000 of such production at present in the United States. An obstacle in more ways than one to the realization of that fact, which becomes the more important as one considers the wonderful natural resources of the South and the increasing population of this country, demanding greater and greater supply of foodstuffs, is the growth of the tenant system in Southern farming.

Between 1900 and 1910 the number of tenants op-

erating farms in the South increased from 1,313,165 to 1,615,175, or by 302,010, equal to 22.9 per cent., while the increase in the number of other farm operators in the section was only at the rate of 10.5 per cent., from 1,582,425 to 1,748,788, or by 166,355. In 1900 tenants constituted 45.3 per cent. of the farmers in the South; in ten years their percentage increased to 47.2 per cent. of the whole number. Of the whole body of tenants 1,305,885, or something more than 80 per cent., are on farms in the eleven cotton-growing States.

No tenant anywhere is really his own master. In cotton growing his course of action, even if he were qualified by knowledge and experience to raise other crops than cotton, as is frequently not the case, is dictated by his landlord, the country merchant who advances him his supplies, or, perhaps, the extortionate money-lender, who is the only kind of banker with whom he is acquainted. He has little incentive to become the owner of his own farm, even if there were opportunity, and the policy of the one crop made year after year on credit undoubtedly accounts for an increase of more than 300,000 in the number of tenants in ten years in the South, marking the passage of many farmers from the more or less mortgaged ownership of land. Only where landlords give personal supervision to the operations of their tenants and insist upon an application of the principles of diversification can the tenant system be expected to result in an improvement of the land and a betterment of the condition of the tenant to the point where he may become an independent farm operator. Comparatively few landowners apparently are willing to follow such a line of conduct with their tenants, even though it would surely bring better returns either in annual rent or in the enhancement of the market value of their land.

In such a situation is the opportunity for intelligent investment of time, money and energy, either in co-operation of a group of wide-awake and enterprising farm owners pooling their knowledge and experience for mutual improvement in the making of crops and combining for a systematizing of the sale of their surplus, or in a corporation which will take over large tracts of land now misused by tenants and farm those tracts upon a cash wage basis, presenting to the tenants the alternatives of working for wages or giving place to others who are willing to do so. This corporation enterprise would involve a variety of activities. To advantage everybody concerned, and incidentally the whole South, it should look to ultimate ownership of the land by the wage-earners if they should so desire. Capital required must be sufficient, not only to pay for the land, buildings, machinery and implements, but to provide for the payment for necessary services until such a time as returns from the operations shall meet current expenses and begin to repay the capital invested. The necessary services will be, in addition to actual work done by the wage-earners, executive work by the office forces and instruction by agricultural experts given to the wage-earners. The management should include enlightened merchandising on a cash basis, with prices for goods sold to the wage-earners not exceeding their actual cost to the corporations, plus a fair return for the responsibility involved; the renting of homes with their house lots upon a building and loan basis, providing for gradual purchase by the renters, and some banking system to handle the building and loan proposition.

In laying out the land some center convenient to the whole tract and abutting upon as many of the farms as possible should be selected for the homes of the employes, grouped about the store, bank, the school, the library and the church buildings. Such an arrangement will tend to develop the feeling of common interest in corporation and employes and to overcome the isolation, with its detrimental influences, which is a main drawback upon the development of rural communities.

As things are now, the wages, in the form of regular cash payment, offered by urban occupations are the loadstones drawing the younger generation from the country to the city, quite as powerful as the desire for expression of social instincts. The loadstones are as effective with the sons of owners of the farms they operate as well as with the tenant class, and they are effective because, under the present general system, with its background of forty or fifty years of constantly expanding and evermore costly credit, the younger generation has the prospect either of becoming tenants or of living surrounded by tenants. The reformation—in short, the revolution—must begin at the bottom stratum. The tenants, the great mass of them, are probably unaware of the full weight of the burden they are carrying in the shape of double prices paid for supplies bought on credit and the lower prices received for their product sold through their creditors or given to their creditors to help to meet their obligations. The definite wage, graded according to the character of the work done, is a concrete fact, a certainty, encouraging planning for the future, and the opportunity given for the application of part of the wage toward the acquisition of an unencumbered home and land, to be used after instruction and guidance by experts in a more intelligent way than is now possible for thousands of agricultural workers, ought to be an incentive to rendering the best sort of service.

Many details of the plan instantly suggesting themselves have not been mentioned here. Many minor problems will have to be considered as they present themselves according to varying circumstances. The desired revolution cannot happen over night. It must be wrought out through years of patience and persistence, but years of sure profit for the projectors and increasing prosperity for the participants. It does not contemplate converting the great body of Southern farmers into wage-earners, but its aim is to check the increasing tendency toward tenancy, to bring about conditions whereby the rate of increase in the number of independent farm operatives of the South will be twice as great as the rate of increase in the number of tenants instead of only less than half as great as at present. Wage earning is to be regarded merely as the temporary stage of transition from tenancy to ownership. The lessons in system and economy in the making and the marketing of crops by the co-operative or corporate agricultural enterprises will not be lost upon independent farmers, but will work out to their benefit as well as to the benefit of the progressing tenants.

THE PROBLEMS OF THE JITNEY.

REPLYING to an inquiry as to a reported purchase of 100 motor cars to be operated as jitneys, C. B. Buchanan, general manager of the Virginia Railway & Power Co., Richmond, Va., writes to the MANUFACTURERS RECORD:

> Up to date we have purchased thirty-odd Briscoe cars and several Ford cars, and are operating the jitneys. The routes upon which these cars are operating are parallel to the car lines, but generally two blocks off, running into the business streets, upon which the car lines are operated. We are not giving transfers to the street cars, and it is not our intention to do so. These jitneys are running at a maximum of two miles, and we have only been operating them for a short time; therefore, it is impossible for us to give the best service. Since we have installed this line of jitneys a great many of the independents have discontinued operation. The city authorities now have the matter of considering regulation, and it depends entirely on this action as to whether we will discontnnue the service on the number of jitneys that we are now operating.

Richmond was caught suddenly on the high wave of the jitney movement in this country. Probably no other city of its size had as many jitneys operating in its streets. The entrance into the jitney field by the Virginia Railway & Power Co. is one of the notable manifestations of the movement and leads to suggestions which may be of service alike to street-car companies and jitney promoters.

Aside from the fact that novelty and the opportunity to enjoy at small cost a ride in an automobile accounts in part for the popularity of the jitney, the patronage given it wherever it has appeared has a broader and more permanent basis. The jitney undoubtedly meets perfectly legitimate and natural demands, either for greater convenience or for greater speed in local travel. These demands must be given due weight by managements of street railways and by municipal authorities in reaching a just solution of the problems created by the appearance of the jitney. It is for the street-railway companies to take the hint and where possible to meet the demands, either in improving their service with existing means or adopting the jitney as an auxiliary. Paralleling of the two services, either in physical connection or in competition, means waste for which the public must pay in the end. But there is hardly a city in the country which is ideally equipped for passenger service, and in most cities are considerable areas not touched by the street-car lines, but capable of furnishing profitable patronage to motor-vehicle service operated independently or as a feeder to the street railways. Where their charters permit it would seem to be wise for the street railway to place jitneys in such areas, in cases where the haul would be short in comparison with that of the normal one-fare haul in the city, charging the full fare, with transfer to the street-car lines or a smaller fare where no transfer is desired. It is for the proper authorities to make it certain that no franchise for which existing corporations have paid or are paying money to the city shall be voided by jitney competition. For instance, the street-car corporation in one large city of the country is compelled to pay 9 per cent. of its gross earnings into the city treasury for the support of the public parks, and the importance of this tax is indicated in the fact that in fifty years practically all the parks of the city, aggregating about 2500 acres, have been purchased and maintained by the more than $10,000,000 accruing from the tax. It is obvious that for the protection of the city itself in continuing its far-sighted public-park policy and in justice to the street-railway corporation any agency undertaking to enjoy privileges the same as those of the street-car company shall be compelled to bear the same responsibilities in the matter of taxation. The question of financial responsibility in relation to patrons or to other users of the streets is also an important one and must be settled right. Of course, the authorities cannot permit popular clamor to influence them in determining the permanent course of conduct toward the innovations. Nor can they be influenced against the innovations by special pleadings on the part of the corporations based upon anything but equity and the public welfare.

It would be well for everybody to recognize that the jitney service in one form or another is here to stay, that it is subject to regulation just as any other public service, that attempts to suppress it may have the effect exactly contrary to expectation, and that it may be so adjusted to existing and older services as to be profitable to itself and to them.

EDWARD W. PARKER'S NEW WORK.

AFTER twenty-five years' service, Edward Wheeler Parker will, on July 1, sever his connection with the United States Geological Survey, and will organize and manage a bureau of statistics and publicity, with headquarters at Wilkes-Barre, for the anthracite interests of Pennsylvania. Beginning his work for the Government in 1889 in connection with the Eleventh Census, he became statistician of the Geological Survey in 1891, and, in the meantime, developing into an authority on coal mining and coke making, he was, in 1907, appointed chief of the division of mineral resources in the Survey. Readers of the MANUFACTURERS RECORD are well acquainted, through his contributed articles, with the valuable work done by Mr. Parker, and, while congratulating him upon his entrance into a new field, will regret that the Government is to lose his valuable services. He is one of a number of men of special equipment at Washington who have devoted the best years of their lives to work of unmeasured benefit to the whole country without the importance of that work or the really patriotic devotion to it of the workers being fully appreciated by the country. It ought to be made impossible for such men as Edward Wheeler Parker to find it to their advantage to leave the public service.

RAILROADS WITH INCREASED REVENUES.

IT is especially pleasant and agreeable to observe in the published statements of railroad earnings throughout the country that among the few companies reporting, in comparison with 1914, increases during the period of their fiscal year from July 1 to April 1 a majority of their lines are either in the

South or partly therein. For instance, the Chesapeake & Ohio Railway has increased in the nine months mentioned to $32,229,000, as compared with $31,168,000 last year, and the Missouri, Kansas & Texas Railway has risen from $27,362,000 to $28,166,000. The Atchison, Topeka & Santa Fe system has increased its earnings by several millions of dollars, or from $83,679,000 to $88,476,000. The Rock Island Lines have risen also in gross earnings during the period from $52,524,000 to $54,830,000, and the Colorado & Southern from $11,311,000 to $12,043,000. The Western Maryland Railway reports a small gain, having advanced from $6,887,000 to $6,975,000. It is furthermore interesting to see that the Missouri Pacific Railway, whose lines are partially in the South, has reported a comparatively small decrease of $1,500,000 in a total of about $50,000,000 gross revenue, and it may be remarked that only two roads of any importance wholly outside of the South report any increase whatever, thus emphasizing the importance of the progress achieved by the several other roads herein named.

GREAT SHIPBUILDING ERA AHEAD.

FACING conditions unprecedented in its history, the United States will of necessity soon enter upon a great shipbuilding era. It may be accepted that the people of this country will now demand the building of a navy on a scale which for years to come will keep many of our shipyards busy. They will also demand legislation that will result in an era of vast merchant-marine shipbuilding activities. No longer will our nation permit itself to be dependent upon foreign ships, nor be unprepared to meet any emergencies that might make necessary a powerful navy and a large merchant marine. Our country should stand before the world as a peace-loving nation, but the present war has demonstrated the need of preparedness if we would make ourselves safe from possible aggression. It may therefore be expected that the people will overwhelmingly demand a strong navy.

We have seen the unspeakable folly of having only a beggarly merchant marine. Many people had never realized this need before and had believed that it was just as well to let the ships of other nations carry our ever-swelling commerce. That this has been a great error is now universally recognized. Legislation to overcome this must certainly be enacted and encouragement be given to shipbuilding and ship-owning. We ought therefore to be able safely to look forward to great shipbuilding activity in the near future without regard to the outcome of the present international situation. Peace or war alike will see our shipyards humming with activity to the benefit of every business interest.

Optimistic Notes Reported.

Contracts for 5,500,000 feet of Mississippi and Louisiana yellow pine, resumption of night operations by the Richton Lumber Co. of Richton, Miss.; the Government contract of 2,500,000 feet of lumber for the John F. Wilder Lumber Co. of Hattiesburg, Miss., and increased demands upon the Myrich Lumber Co. of Gadsden, Ala.

Resumption of operations by the new mill of the Bedford Pulp & Paper Co. of Richmond, Va., at Big Island, Bedford county, Virginia.

Arrangements completed by the Ocean Steamship Co. of Savannah for the addition of two new steamers to its fleet.

Stove works at Gadsden reopening after several months.

Sloss-Sheffield Steel & Iron Co. returning toward normal operations at some of its mines at its Florence furnace and at some of its coke ovens.

Lead in 1914.

The production of refined lead in the United States from domestic ore in 1914 was 512,794 tons, an increase of 100,916 tons over the 1913 production. Missouri had an increase of 42,000 tons.

Reflecting Reviving Southern Activities

LETTERS FROM BANKERS TELLING OF BETTERMENT OF CONDITIONS IN THEIR COMMUNITIES.

Since the publication in our last issue of letters from Southern bankers and others telling of the improvement in material conditions in their respective communities since the beginning of the year, and of prospects for the immediate future, other letters have been received bearing out the spirit of cheerfulness of the earlier ones. These additional letters follow:

CONDITIONS SLOWLY ROUNDING TO.

CAMDEN NATIONAL BANK,
Camden, Ark.

Conditions are slowing rounding to in this section of the country.

Our borrowing farmers are making a crop on a very limited amount of money this season—many of them 50 per cent. less than last year. More foodstuff is being raised, and there will be carload shipments of hogs from this section this fall. This is something we have never had before. Most all farmers vaccinating hogs this spring and this county was included in the tick eradication district. This means more and better cattle, as we have unlimited areas of Bermuda grass. Many acres of Sudan grass have been planted, and the farmers are just beginning to realize the value of diversification.

We will have a bumper crop of peaches, and all crops are in most excellent condition.

D. V. SNOW, Cashier.

THE SOUTH MORE NEARLY IN A POSITION TO CARE FOR ITSELF THAN IT HAS BEEN FOR YEARS.

THE FIRST NATIONAL BANK,
Greenwood, Miss.

Referring to a betterment of conditions in the South, and speaking for this immediate section, we see two prime causes for this effect: First—economy. Owing to the fact that the cotton market was utterly demoralized last fall, the people began to retrench and to adopt drastic measures in the matter of economy. Second, a large per cent. of the planters in this community were in a position to hold their cotton for better prices, and the advance which materialized in the early months of the year was largely taken advantage of by them. While very few of our planters operated profitably last year, practically all of them are in as good financial condition as they were a year ago, as is indicated by the enclosed bank statement, our deposits being almost the same as the preceding year and loans to planters and farmers 33⅓ per cent. less than a year ago.

We are of the opinion that the South is in more nearly a position to take care of itself than it has been for a number of years, as large quantities of feed have been planted this year, the cotton acreage has been reduced and we are less extravagant than we have been for a long time.

E. M. PURCELL, Cashier.

IDEA OF LIVING AT HOME MORE THOROUGHLY IN PRACTICE.

THE NATIONAL UNION BANK,
Rock Hill, S. C.

Conditions with us at this time look very much better than they did during December. We all know that the real conditions are no better, but we have found out that in spite of a long-drawn-out war in Europe, we can live very comfortably.

More progress toward diversified farming was made in South Carolina last year than ever before, when we planted 112 per cent. more oats and 200 per cent. more wheat than we did the prior year.

There is more interest in livestock than has ever been known. The number of hogs and cattle that will be raised in South Carolina during 1915 will greatly outstrip any year in its history.

In this section it has been demonstrated that as fine alfalfa hay can be raised as is raised in California. York county had last year more well-sodded alfalfa than all the rest of the State combined, and hundreds of acres more were planted last Fall, which is at this time doing wonderfully well. The climate and the land of the Piedmont section of South Carolina are ideal for the raising of alfalfa, and alfalfa and livestock go hand in hand.

Our people in this section learned through the experience of last year that they are able to get along regardless of the price of cotton, and for that reason they look with more confidence to the future. The cotton acreage with us has not only been reduced 25 per cent., but the amount of commercial fertilizer has been reduced 50 per cent.

The labor question is nothing like as great a problem with us at this time as it was one year ago. Better labor at a less cost has been the result, and the cotton that we make will be made at a profit, regardless of the price.

The idea of "living at home" is more thoroughly in practice with us this year than it has been for a number of years. We feel that prosperity is now with us.

IRA B. DUNLAP, Vice-Pres. and Cashier.

A GREAT FUTURE WORKED OUT FOR THE COUNTRY.

THE FIRST NATIONAL BANK,
Tupelo, Miss.

In our opinion, there is being worked out a great future for this country. The present fast passing depression, that has hung like a dark storm cloud over us for months, threatening utter destruction, is the "darkest hour before the dawning."

Confidence is surely, but quietly, stealing back into all lines of business activity. The gray dawn of the morning is already visible, and the sun of a new and a brighter day will soon arise upon our Southland, to the utter astonishment and glad surprise of those who have but small vision.

The note of optimism is here, and we feel sure that the final outcome of all this disturbance will be the full restoration of confidence along all lines, and projected upon a more solid basis than ever before known. The agricultural door is now swinging wide open to our farmers, and it will be but a matter of a few years until they shall come into possession of the art of diversification that shall make them rich. With us, the enrichment of the farmer means the enrichment of the whole country. The untoward circumstances and conditions now confronting us will give place to broader views and clearer visions of opportunity and success. The Southern farmer is a producer, not a provider of ways and means of disposing of his hard-earned crop surplus or overproduction. He is now, we hope, ready to learn; if so, the psychological moment has come to sever the cord that has so long bound him to his out-of-date methods. Who will be the Moses to lead him out?

Oral lessons will not suffice; there must be an ocular demonstration of intensive and not extensive farming. The extensive farming has been the bane of this country for years, and has seriously hurt all parties concerned. We had rather be accounted too optimistic than at all pessimistic.

F. JOHNSON, Cashier.

ABLE TO TAKE CARE OF ALL LEGITIMATE FINANCIAL DEMANDS.

ALAMO NATIONAL BANK,
San Antonio, Tex.

Conditions in our section are holding up very nicely, and there seems to be some improvement in collections, and the general condition of the country is able to take care of all legitmate demands financially.

Manufacturing interests seem also to about hold their own, and while there is not much expansion in this line, there is a good deal of hopefulness among the manufacturers generally. We see no reason why there should not be continued improvement.

J. N. BROWN, President.

FARMERS HAVING NO TROUBLE TO FINANCE THEMSELVES.

AMERICAN NATIONAL BANK,
McAlester, Okla.

Had anyone told us last Fall that things would be as well with us at this date as they are we would have not believed him. Our farmers are putting in more small grain than ever before, which means less cotton, and are having no trouble to finance themselves. Then the farmers are going to make their crops with less borrowed money than ever before, which will be a good thing, as, in our opinion, the credit system is not only

very much wrong here, but a bad thing for the farmer. Many of our best farmers are getting more stock, and will feed rather than sell their crops. A creamery has recently opened here, and will be a great influence for good. We need a grain buyer and an elevator.

The coal business has been very good all Winter, and that has helped out very much.

Splendid season in the ground, and all are feeling that this will be a good year.

E. C. MILLION, President.

RECEIVED BENEFIT OF INCREASED FOREIGN DEMAND.

THE FIRST NATIONAL BANK,
Newport News, Va.

Newport News is very favorably situated, having received the benefit of increased foreign demand for our grain and livestock. The exports for the month of April from this port were over $13,000,000, which is composed largely of grain and horses.

The Newport News Shipbuilding & Drydock Co. has large number of contracts, and will soon be working to its full capacity.

The dry weather of April rather retarded early vegetables, but recent rains are bringing them on rapidly. Altogether we are in a very prosperous condition in this city.

J. A. WILLETT, Cashier.

BUSINESS GRATIFYING UNDER THE STRAIN.

E. L. WISON HARDWARE CO.,
Beaumont, Tex.

While lumber, rice and oil, which are our main supports in this section, have been affected very largely from the disturbed conditions over the world, business has been very gratifying under this strain, for which we are very thankful.

Our record really shows a volume which corresponds favorably with the past few years, and while we know this to be the case, and even better in some lines, it may not be safe to say it is a general condition; however, we can see an improvement in the confidence of the future and a stiffening of trade, and we therefore look forward to a very fair business through the summer and the coming fall.

JOHN L. KEITH, Pres. and Gen. Manager.

MOULTRIE'S MEAT-PACKING PLANT.

Other Industries Started as a Result of Its Success.

[Special Correspondence Manufacturers Record.]

Moultrie, Ga., May 15.

As the result of the establishment of the packing plant here, just four months ago, Moultrie and Colquitt county are developing rapidly into an ideal and practical diversified community. It will be recalled in an article in the MANUFACTURERS RECORD, J. W. Greer, secretary of the local Chamber of Commerce, outlined the general policy of the packing company, which was to create a market for the farmer for his hogs and cattle. The success of the plan is apparent. An official of the company states that they had killed in four months some 17,000 head of hogs. The officials had anticipated an annual killing of 10,000 hogs, and that mark was more than passed during the first quarter of a year.

The meat produced is shipped to all parts of the country. The bulk of it, however, is used in the South. Twelve refrigerator cars have been purchased and are now in use in shipping beef to Atlanta, Macon, Jacksonville and many other points in this section. Fresh pork is also shipped in this manner. In view of the close proximity of the packing-house, cities in the South are now enjoying, for the first time to any great extent, the advantage of securing fresh beef, pork and about 100 other packing-house delicacies that have never before been used, as they can only be shipped short distances.

Several other enterprises have already supplemented, and will from time to time supplement the packing industry. The first was the buying of more cows to furnish skim milk for the hogs. This was a stimulant to the cattle market. As only the skim milk is used in feeding the hogs, and is very essential, the cream is left over. Therefore, an overproduction of this commodity has led up to the suggestion of a creamery. Plans are now under way to establish one during the summer, and final consummation of the deal is practically assured.

To feed the milch cows, beef cattle and hogs the farmers have been compelled to plant more hay, oats, peanuts and alfalfa. Thus, an unusual demand for seeds of all kinds was created. Therefore, B. C. Whitted, from North Carolina, recently arrived in Moultrie and established a seed store under the name of the Moultrie Seed & Produce Co. Mr. Whitted is now importing all his seeds from other parts of the country, but has been reasonably successful, in view of the short length of time he has been established, in getting his farmer customers to agree to plant and produce the seeds for him. Then he will ship them to other parts of the country.

Recently a buyer of hides came to Moultrie. He contracted for the hides turned out by the packing plant and had time to spare on his hands. So it was suggested that he establish a market for poultry and eggs to take up his time while not busy shipping hides, and immediately he did. Now Moultrie has one of the livest markets for those foodstuffs in the State.

Hog livers are not sold for food, but are consigned to the fertilizer plants for use in the manufacture of that very necessary article. When the capacity of the packing plant is increased to 1000 head of hogs per day it means the furnishing of thousands of pounds of livers for fertilizer. Hence, it is expected that another plant will be established as the result.

The Moultrie Packing Co. has received quite a large amount of publicity in the newspapers over the country on account of its broad general policy of first establishing a market, then preaching and practicing diversification and giving its neighbor a chance to diversify. As this phase of the business is what the newspapers have all been stressing, and what the packing people have been pushing the hardest, the publicity is not unmerited. The market for the meat, after it has been cured, has not bothered the local men in any way whatsoever, as there is a steady demand for all of their output.

In view of this publicity, quite a number of other towns and cities are considering the matter of establishing a similar plant. Mr. Greer recently appeared before a body of interested business men at Montgomery, Ala., at their request, and outlined the policy and scope of the Moultrie plant. He has a similar engagement in Columbia, S. C., next week. Dublin, Macon and many other towns in Georgia are now planning and figuring on establishing them, as is Dothan, Birmingham and other Alabama towns. Several parties in North and South Carolina have written asking about the local plant.

Here is the keynote of the whole situation in diversification: Establish the market and the results will take care of themselves. This is Mr. Greer's philosophy.

ROY G. BOOKER.

Improving Conditions in Arkansas.

Board of Trade,
Little Rock, Ark., May 12

Editor Manufacturers Record:

Everyone has got the new spirit, and work is going on with a firm belief of making things count this year. The farmer has seen his mistakes, and this year he is planting corn where nothing grew last year. The result is that the acreage this year on corn will be 25 per cent. greater, which means about $75,000 to the farmers of this section. While feed is feed, yet, instead of getting the corn from Kansas City, it is now raised here and the money stays here. Corn planting is now well under way, and a rain would greatly help the same.

Last fall there was planted at least 35 per cent. more oats than the year before, but the hard winter cut this down to about 25 per cent., and with the sowing of spring oats left the mark at about 30 per cent. over last year, which means at least about 150,000 bushels more over last year at a value of $100,000 more. This figure will only hold good if we have a good general rain in the next week. The oats at present are beginning to head, and need rain.

There will be an increased acreage in rice, and from all indications it will sell at the same high prices of last year. From weather conditions now existing in Texas and the Arkansas River again rising, we should have plenty of rain in May in this locality. Rice so far this year is two weeks earlier, and should we have plenty of rain it would mean a saving of $1,250,000 to the rice growers of Arkansas, and with Grand Prairie as the controlling section it would mean at least $1,000,000.

GEO. R. BROWN, Secretary.

TO FURTHER CATTLE RAISING.

Features of the Convention to Be Held at Quitman.

[Special Correspondence Manufacturers Record.]

Quitman, Ga., May 13.

In connection with the Animal Industry Convention, to be held here on May 25, will be celebrated the fifty-seventh anniversary of the organization of the Hickory Head Agricultural Club, planned to teach the farmers of this community to diversify their crops. It has the unique record of not having missed holding a duly recorded annual meeting since it was organized. Another feature of the convention, which is now held under the auspices of the Georgia Chamber of Commerce, will be an exhibit by the American Hereford Breeders' Association of about 100 head of the finest registered cattle.

Among the visitors expected are Carter H. Harrison of Chicago, Governor John M. Slaton of Georgia, E. M. Nighbert, superintendent of the bureau of animal industry of the National Government; K. G. Matheson, president of the Georgia School of Technology, Atlanta; Dr. A. M. Soule, president of the Georgia Agricultural College, Athens; Chas. J. Haden, president of the Georgia Chamber of Commerce, Atlanta; J. C. Haile, president of the Central of Georgia Railroad; W. W. Croxton, general passenger agent of the Atlanta, Birmingham & Atlantic Railroad, and the mayors of 42 adjacent towns in South Georgia and North Florida. Governor Trammell of Florida has also promised to be on hand if affairs of the State do not claim his attention at the time, as will Governor Henderson of Alabama.

Brooks county, of which this town is the seat, is a shining example of what diversification can do for a community. Last year it raised 2,187,000 pounds of cured hog meat, there were 6142 more acres planted in corn than in cotton, and the money value of the hog meat approximately equaled the value of the cotton crop in the county. The farmers have for years made a specialty of raising hogs and cattle, and as the result have increased the efficiency of their farms to an amazing degree. There are quite a number of them that have, among other improvements, their own packing-houses to take care of the meat raised on the place. In view of this fact, the Government has recently had a special man work through this section gathering data to use in a special series of articles it will distribute through the country, regarding the industry in Brooks county.

The Brooks County Industrial Club, of which Edward Young Clarke is secretary, has taken charge of the details of arranging for the meeting. The convention is the largest event of the year in this section, and the prospects for the greatest affair of all look exceedingly bright. Certainly it should be, with such leading lights as enumerated above among those present.

Thomasville Commercial Association.

[Special Correspondence Manufacturers Record.]

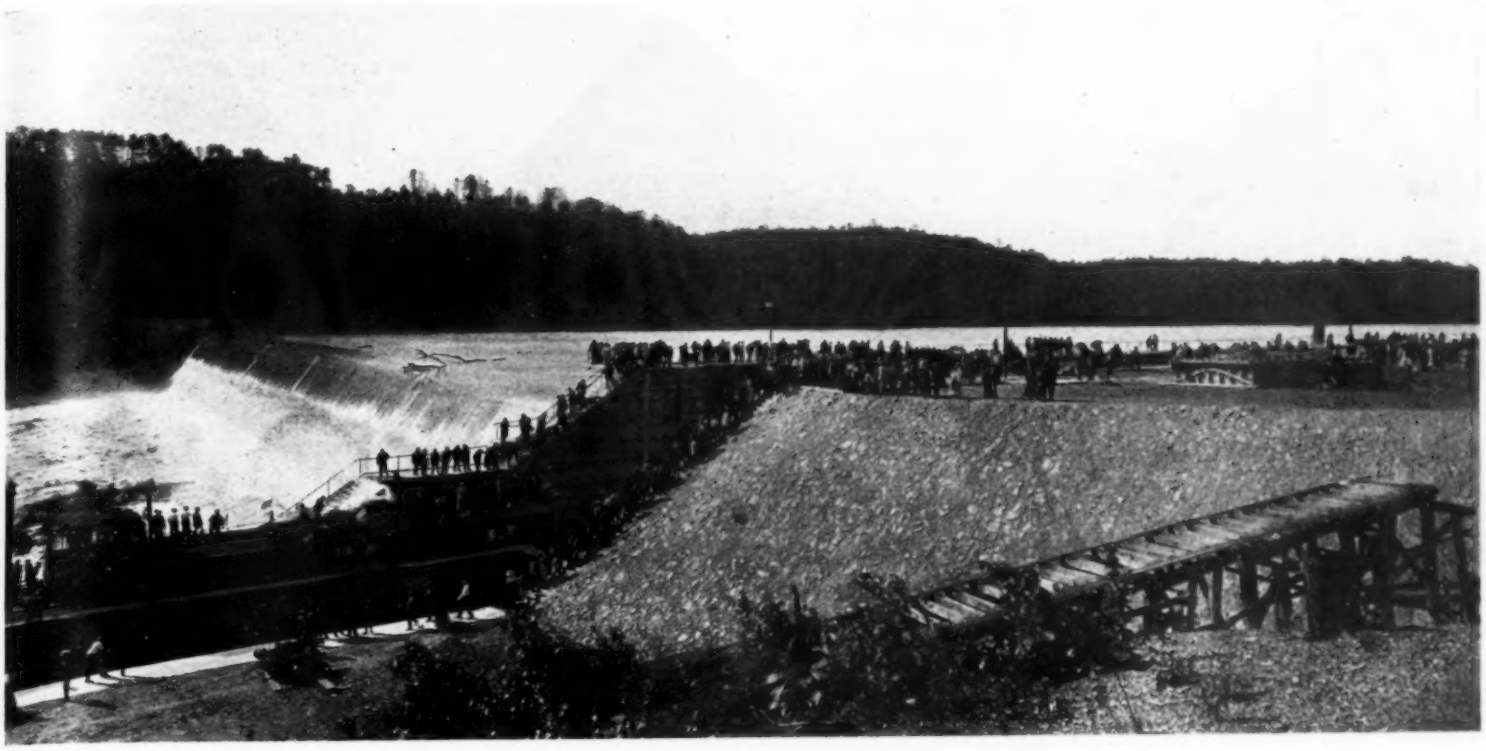
Thomasville, Ga., May 14.

The Thomasville Commercial Association has been organized with approximately 200 charter members. This body is composed of Thomasville's best and most substantial business men, who have long realized the necessity of an organization of this kind. It is expected that the organization, when it secures the services of a permanent secretary—Jos. G. Gardiner is the temporary secretary—will make an industrial survey of the city and community to determine what line of development is needed to build the city. Then the organization will specialize on that phase of development. At the organization meeting Monday night approximately a revenue of $6000 annually was guaranteed for three years.

The Orange Belt Terminal Co., capital $2500, has filed incorporation papers at Mobile, Ala., for the purpose of purchasing, leasing and holding lands for terminal purposes and to handle and market citrus fruits and farm products. The incorporators are L. C. Irvine, L. W. Savage and Charles G. Ibach.

The production of sugar in Louisiana in 1914 amounted to 242,700 tons, produced from 3,199,000 tons of cane. There were 149 plants in operation during the year.

A $15,000,000 Alabama Waterway Improvement Finished



AT THE FORMAL OPENING OF LOCK NO. 17 IN ALABAMA'S GREAT WATERWAY IMPROVEMENT.

[Special Correspondence Manufacturers Record.]

Birmingham, Ala., May 14.

A new epoch in the industrial and commercial history of Alabama was inaugurated with the formal opening yesterday of Lock 17, on the Warrior River.

The completion of this work throws open for year-around navigation a waterway which extends from Mobile on the Gulf 450 miles through the very heart of Alabama, tapping rich regions of coal, iron ore, limestone and other minerals, fine timber areas, a most fertile agricultural section, and comes within 12 miles of Birmingham, that great center of iron, steel and diversified manufacture.

This notable event was celebrated by the attendance of many Congressmen and Government officials, United States Army Engineers and a large number of representative business men of Alabama. The official party went by a special train to Cordova, at the head of navigation of the river. Here were gathered some 5000 people to participate in special exercises, after which the official party boarded one of the river boats for Lock 17. On the way down the river they were met by a special excursion of over 500 people, held under the auspices of the Chamber of Commerce of Birmingham. All of these, including other parties from Tuscaloosa, Mobile and other points on the lower part of the river, gathered at Lock 17 to formally celebrate the completion of this important work. Here the official ceremonies, dedicating this great project, were held, with Governor Charles Henderson of Alabama presiding, and addresses were made by a number of prominent guests.

The big lake, 60 miles long, and averaging one mile in width, was formerly named Lake Bankhead, in honor of a lifetime devotion of Hon. John H. Bankhead, senior United States Senator from Alabama, to whom credit has been given for the accomplishment of this undertaking.

After these exercises the official party journeyed down the river to Tuscaloosa, where an additional public gathering was held. In the trip from Cordova to Tuscaloosa the banks of the river were lined here and there with people, who by their welcoming cheers, indicated their deep interest in this important occasion.

The work, providing for the development of this waterway for year-round navigation purposes, has extended over a period of nearly 30 years, and involved an expenditure of $15,000,000. During all of this time Senator Bankhead unswervingly devoted his energies to securing from the National Government the funds to carry on the undertaking, because he realized the great influence its completion would have upon the development and prosperity of Alabama.

Lock and Dam No. 17, the last link to be completed, cost in the aggregate $3,000,000. It was built by the Hardaway Contracting Co. of Columbus, Ga.

The spillway section of the dam is 1170 feet long, and the height 65 feet. Double locks are provided, each having a lift of 31½ feet. The construction of the locks and dam is entirely of cyclopean concrete, and in this work 225,000 barrels of Southern States Portland cement was used. As this work was located some distance from the railroad, it was necessary for the contractor to build a standard-gauge railroad from Searles, Ala., to the construction site, a distance of 15 miles, and three 70-ton "Shay" locomotives were used for hauling materials and supplies to the job. Very heavy and expensive equipment was also necessary in the construction of this work. A 100-ton Bucyrus steam shovel was used in the main quarry for obtaining the stone for the concrete. This was loaded in Western and Kilbourne & Jacobs steel dump wagons, which were hauled by a 40-ton Heisler locomotive from the quarry to the crushing plant.

An interesting feature in connection with the concrete work was the fact that the contract provided that the work should be completed by December 24, 1914, and a penalty clause was included for each day beyond that time. The last concrete, however, was put in place on December 23, 1914, one day preceding the time limit. Great credit has been given the Hardaway Contracting Co. for the thorough and prompt manner in which this work was executed, and the fact that it was carried on in close co-operation with and to the complete satisfaction of the Government engineers in charge.

In the addresses delivered by the various speakers at the different ceremonies great stress was laid upon what the completion of this work means to the people and business interests of Alabama. They were impressed with the fact that this great waterway will bring them a cheaper method of transportation, and as it leads to the Gulf, offers them opportunities for expanding their trade among greater markets.

It was especially pointed out, now that the National Government had given them this important outlet at a great expenditure of money, they should take the fullest advantage of it by using the river and by developing the great resources adjacent to the river. An important point especially emphasized is the fact that the hills on either side of the river contain large deposits of coal, and these when opened up would need no other transportation than to be loaded directly into barges and carried to tidewater. Already several coal companies have been taking advantage of the river in its incompleted state, and these are planning to extend their operations. The Alabama & New Orleans Transportation Co. has also for some months been operating its new type of self-propelled steel barge on this river. This type of barge, which is a marked advance in river transportation, is being watched with considerable interest, because it promises revolution in river traffic.

As previously stated, this improved waterway comes within 12 miles of Birmingham, and added interest is now centered in the long-cherished project of constructing a canal system on Valley Creek that will extend through Bessemer to Birmingham and cover the heart of the large industrial Birmingham district. This work, which it is estimated will cost only $3,500,000, will prove of untold benefit by givng Birmingham and the industrial communities around it direct waterway navigation and enable these industries to compete for business over a much wider area. It will also have a material effect in reducing present railroad rates. For these reasons, which are so vital to the fullest development of the Birmingham district, every effort will be made to further this Valley Creek Canal project.

In providing a new outlet for Alabama products of mines, mills, factories and farms, and one that will tend to cheapen transportation charges, this new waterway will add immeasurably to the improvement and prosperity of the sections affected by opening up new markets, not only in this country, but in the world, that were heretofore unavailable, owing to the cost of transportation being greater than from other points.

WILLIAM H. STONE.

Wilmington.

In exemplification of activities centering in Wilmington, N. C., the Chamber of Commerce of that city has published an illustrated booklet containing special articles by H. C. McQueen on banking; by Walker Taylor, collector of customs, on export and import trade; by John J. Blair, superintendent of public schools, on the public school system; by Hugh MacRae, on agricultural advantages; by J. A. Taylor and Major H. W. Stickle, United States engineers, on the highways of the city's commerce; by C. W. Stiles, United States public health service, on the sanitation of the city and its surroundings; by C. J. Becker, on water-rail route to Carolina resorts, and by J. F. Sears, on the Cape Fear Country Club.

Typical Modern Buildings in the South

TEXAS COMPANY'S BUILDING, HOUSTON.

COCA-COLA BUILDING, BALTIMORE.

MURCHISON NATIONAL BANK, WILMINGTON.

The past 10 years have been marked by many improvements in the South, but in no particular more so, perhaps, than in the character of the office and industrial buildings that have been constructed, changing in most striking manner the skyline of many cities. These buildings, incorporating the best features of modern architecture and equipment, are really exponents, not merely of the wonderful material advance that the South has made, but of confidence in the continued healthy development of the section and of wise planning for the future. The accompanying illustrations are of buildings in widely-separated cities, thoroughly typical, however, of the general movement and including two office structures and one industrial building.

The Texas Company's Building.

May 1 marked the completion at Houston, Tex., of the Texas Company's building, one of the most modern office structures in the Southwest. The building occupies a site 102 feet on San Jacinto street and 132 feet on Rusk avenue. It is 13 stories high, with basement covering the entire site. Excavation was started June 8, 1914, for the foundation columns, numbering 58, the footings of 52 of which were carried to a depth of 27 feet below the street level, and these were completed August 25. There were used in the structure about 1400 tons of structural steel, 1,100,000 common and 150,000 face brick, 15,000 cubic feet of Bedford limestone, 17 carloads of ornamental terra-cotta, 45,000 surface feet of Italian Rosata marble. There are three Otis elevators, one to one traction type, each having a capacity of 3000 pounds, and operating on a 500-volt current.

The power plant consists of two 150-horse-power Heine boilers, burning fuel oil. At present they are used only for heating, but are of sufficient capacity to operate electric generators. There are two Ingersoll-Rand air compressors, each of which is designed for 136 cubic feet of free air compressed to 60 pounds normal working pressure. Each compressor is driven by one three-phase 60-cycle alternating-current slip-ring type motor, the compressed air being used to operate a pump forcing fuel oil to the boilers. It is also used to operate the Lamson tube system for distributing messages throughout the building and to lift water from the deep well to the surge tank. The water is supplied from an artesian well 1400 feet deep, located in the basement, and is forced from the surge tank to a 12,000-gallon service tank on the roof of the building by three-stage Worthington centrifugal pumps, equipped with automatic control operated from the tank. Drinking water is cooled by a six-ton refrigerating plant furnished by the Vilter Manufacturing Co., while the structure is cleaned by a four-sweeper Tuec vacuum cleaning machine.

The buliding is equipped with an indirect lighting system on the eleventh floor at the upper colonnade, reflectors illuminating the three upper stories as well as the lower side of the cornice. The woodwork throughout the building, with the exception of the twelfth floor, which is of mahogany, is of selected white oak which has been treated with acid and oil. The cost of the structure was about $750,000. It was designed by Warren & Wetmore of New York, and the George A Fuller Company, Chicago, was the general contractor. Other firms supplying work and material were: Adin G. Pierce Company, concrete fireproofing; Hecla-Winslow Company, ornamental iron and bronze; Sloane & Moller, carpentry and woodwork; A. Weiblen Marble & Granite Co., marble; Barker Painting Co., painting; Sargent & Co., hardware; Baker-Smith Company, heating; J. Livingston Company, electric wiring; Black & Boyd, electric fixtures; Higgins Rustless Flyscreen Co., flyscreens; all the above firms of New York; C. M. Lane, steel erection; Houston Structural Steel Co., structural steel; Ed. Eiseman, roofing and sheet metal; Otis Elevator Co., elevators; all of Houston; E. F. Gilberson, Bedford, Ind., limestone; T. W. Norton, Llano, Tex., granite; McNulty Bros., Chicago, plastering; Hadley-Dean, St. Louis, glazing; American Sheet Metal Works, New Orleans, hollow metal windows and frames; C. C. Hartwell Company, New Orleans, plumbing; Gustavino Company, Boston, arcade arches; Cutler Mail Chute Co., Rochester, N. Y., mail chutes; Western Electric Co., New York, electric fans; Texas Store Service Co., Dallas, pneumatic tubes; Atlanta Terra-Cotta Co., Atlanta, Ga., terra-cotta.

Coca-Cola Building.

The city of Baltimore has so many advantages as a location for industrial enterprises that frequently it has been selected as a site after manufacturers have carefully considered other cities as possible locations for plants. An instance of this is the large building and plant which the Coca-Cola Co., Asa G. Candler, president, Atlanta, Ga., built at Baltimore. Mr. Candler has stated: "For more than a year the company was trying to determine in which of the great Eastern cities to establish headquarters for its Eastern department. Investigation convinced us that Baltimore was not only the commercial metropolis for Southern trade, but that it afforded shipping opportunities, both by rail and water, for domestic and foreign traffic superior to any of the great cities in any section of the United States." After investigation the company acquired a site at Pratt and Concord streets in the fall of 1910, began constructing an eight-story-and-basement reinforced-concrete building in February, 1911, and completed this in April, 1912. This structure contained 186,000 square feet of floor space, and was occupied in part by the company for manufacturing purposes. It offered features that were so attractive to business men that it was soon completely occupied by enterprises comprising the following: Francis Co., straw-hat manufacturer; L. Greif & Bro., clothing manufacturers; Pompeian Co., importer and packer of olive oil; Chocolate Products Co., manufacturer of chocolate specialties; Burrough Bros. Manufacturing Co., pharmaceutical chemists; Turnbull, Todd & Co., hardware and machinery supplies; Allan W. Fulton & Co., marine engines and automobiles; C. N. Merritt & Bro., commission merchants; C. S. Briggs Co., lumber merchant; the Lumber Exchange.

The growth of the Coca-Cola Co.'s Baltimore trade besides demands from tenants and others seeking locations in its building caused the company to decide upon enlarging the original structure. In the spring of 1913 the company completed the purchase of additional land, and in the fall began constructing a 12-story-and-basement reinforced-concrete structure, which is now nearly completed. Combining this with the original building, a total floor area of 636,000 square feet, about 15 acres, has been provided. The combined buildings will be as near fireproof as possible, and will also have a complete sprinkler system with fire pump. They are in the heart of Baltimore's shipping district, within close haul on easy grade of all water terminals and the Pennsylvania, Baltimore & Ohio and Western Maryland freight stations. In designing the building provision was made for a siding from the Baltimore & Ohio Railroad, with a capacity of five cars within the building. In addition there are continuous driveways under cover, permitting receiving and shipping freight regardless of weather conditions. These driveways are built to wagon level, and contain 6000 square feet of floor space, freight being received upon and discharged from 12 freight elevators, which distribute the goods to the various floors. Four passenger elevators of large size and high speed, three fireproof stairways and four fire towers provide easy egress in case of need. Flat beam type construction, showing a paneled effect in the ceiling, increasing the available head room on the floors and improving light and ventilation, were adopted for the building. It is stated that the Coca-Cola building is the largest individual industrial structure devoted to diversified manufacturing. A gratifying feature of the company's decision is that it is based in part on the direct advantages obtained from municipal improvements recently completed in the vicinity of the plant. The Fallsway and the repaving of Market Place and adjacent streets afford convenient access by easy grade to railroad terminals for shipments of less than a carload. For large shipments the Pratt street tracks permit the entrance of a freight train into the building. Opposite the plant are municipal piers for water shipments.

The original power plant has been considerably enlarged to meet the service for the new building. Its equipment is three water-tube boilers, 150 horse-power each, built by the Babcock & Wilcox Company of New York; two Nagle Corliss engines, 18x36 and 12x30, built by Nagle Corliss Engine Works, Erie, Pa.; these engines direct connected to 90 and 200-kilowatt generators built by the Fort Wayne Electric Works, Fort

Wayne, Ind.; two boiler-feed pumps, 1000-gallon underwriter pump, etc. The additional equipment consists of two 350-horse-power Babcock & Wilcox boilers; three direct-connected Nagle Corliss engines, two 14x36, connected to 150-kilowatt generators, and one 11x16, connected to 50-kilowatt generator; two vacuum pumps; two boiler-feed pumps; electric-house pump. The new boilers will be fed with National Sun stokers; the stack is of reinforced concrete, 200 feet high by 68 feet in diameter. The Girtanner-Daviess vacuum ash-handling system, built by the Girtanner-Daviess Engineering Co., St. Louis, has been adopted. The entire plant is of the high-presure type. The heating plant for the building is the Warren Webster vacuum system, furnished by Warren Webster Company, Camden, N. J., with syphon radiator valves, the valves and radiation being furnished by the American Radiator Co., Chicago. There are 14 traction type elevators, built by the Otis Elevator Co. of New York. The wiring throughout is in rigid conduit known as Sherarduct, each floor being fitted with two special metering type panel boards. Fire protection consists of a complete sprinkler system supplied by two 1000-gallon underwriter fire pumps and three 30,000-gallon concrete tanks.

Among other important materials used in the construction of this building were Portland cement, Dexter Portland Cement Co., Nazareth, Pa.; concrete pile, Raymond Concrete Pile Co., New York and Baltimore; face brick, Fiske & Co., New York city; metal wnidow frames and sash, C. D. Pruden Company, Baltimore; sprinkler system, General Fire Extinguisher Co., Providence, R. I.; concrete reinforcing bars, Corrugated Bar Co., Buffalo, N. Y.

Murchison National Bank Building.

Construction of the Murchison National Bank building at Wilmington, N. C., has been completed at a cost of about $275,000. This structure is 10 stories high, having a front of marble, architectural terra-cotta and tapestry brick. The interior is finished in cabinet and marble work, with terrazzo and cork tile floors. The building is equipped with metal-covered doors and windows, and all modern bank and office appliances. It was designed by Kenneth M. Murchison of New York, the general contractor being J. Henry Miller, Inc., of Baltimore. Other firms supplying labor and material include the following: Elevators, Otis Elevator Co., Equitable Building; interior marble, Evans Marble Co., York and William streets; heating plant, Louis F. Andrae & Co., 10 E. Perry street; all of Baltimore, Md.; terra-cotta, South Amboy Terra-Cotta Co., 150 Nassau street.; plumbing, G. J. Staats, 160 E. 59th street; electric work, Peet & Powers, 45 W. 34th street; waterproofing, Impervious Products Co., 10 William street; fireproofing, Keystone Fireproofing Co.; exterior marble, B. A. & G. N. Williams, 133d street and Walnut avenue; cement and concrete work, Harrison & Meyer, 1182 Broadway; mill work, H. W. Palen's Sons, 366 Fifth avenue; all of New York; tile and terrazzo, National Mosaic Co., 338 Pennsylvania avenue N. W., Washington, D. C.; granite, Lemmerman & Hoffman Granite Co., Mt. Airy, N. C.; painting, W. P. Nelson Company, 209 W. 33d street, New York.

The Charleston Interurban Railway Co. has sold to Robert Garrett & Sons of Baltimore $750,000 of 6 per cent. notes, the proceeds of which are to be used to build an extension to Montgomery, W. Va., 24 miles from Charleston.

The Davison Chemical Co. of Baltimore has received contract from the Du Pont Powder Co. for about $1,000,000 worth of sulphuric acid, with a possibility of the order being increased by $300,000.

The Mt. Vernon-Woodberry Mills of Baltimore have recently received foreign orders for 1,250,000 pounds of khaki cloth and other products.

The Cummer Lumber Co. of Jacksonville has sold 100 carloads of peach crates in Maryland and the Virginias since May 1.

REINFORCED CONCRETE IN LUMBER PLANT CONSTRUCTION.

PLANT OF DELTA LAND & TIMBER CO., CONROE, TEX.

The big new mill at Conroe, Tex., of the Delta Land & Timber Co. is expected to be ready for operation by June 1, as the greater part of the work is already accomplished and finishing touches are being put on. This plant is one of a chain of mills of the Central Coal & Coke Co. of Kansas City, Mo., which also has large mills at Carson and Neame, La. The kiln buildings at Carson, La., are of brick and concrete construction, the walls being of brick and the roofs of reinforced concrete, with Moore's system of steel foundation to support the track and heating apparatus on the inside of the kiln. The kilns at Conroe, Tex., and, in fact, the whole plant there, is of reinforced concrete, both walls and roof.

REINFORCED CONCRETE DRYKILNS AT THE PLANT OF THE W. G. MITCHELL LUMBER CO. AT SHORT LEAF, ALA.

The plant, which will have a capacity of 100,000 feet of boards in 10 hours, was constructed under superintendence of J. W. Atkins, and no pains or expense have been spared to secure the most up-todate equipment available, the sawmill being a double band and the planing mill being equipped with modern fast-feed machinery. A mono-rail system will distribute the lumber about the plant. The drying equipment includes 12 rooms 120 feet long and 20 feet wide for endwise piling, and are of the Moore moist-air type. The estimated drying capacity is 225,000 feet of board in 24 hours. The equipment was constructed by L. Moore Dry Kiln Co., C. E. Emmert, general superintendent, Jacksonville, Fla. The company recently completed some drykilns at the new modern mill of W. G. Mitchell Lumber Co. at Short Leaf, Ala., near Demopolis, and also at the plant of the W. R. Pickering Lumber Co. at Haslan, Tex. The plants here mentioned indicate an inclination to turn into board mills sawmills that are now cutting dimension stock and for the sawmills to kilndry the entire output.

Florida Drainage Act Sustained.

P. A. Vans Agnew of Vans Agnew & Crawford, attorneys for Upper St. Johns Drainage District, Jacksonville, Fla., calls attention to the fact that the Supreme Court of Florida has just sustained the constitutionality of the Florida drainage district act of 1913, chapter 6458, under which act the Upper St. Johns Drainage District and other smaller districts in South Florida have been organized during the past two years. The decision was rendered in the case of the Pinellas Park Drainage District vs. Kessler, and the opinion was unanimous.

Wood-Preserving Plants.

Owing to a falling off since August 1 of nearly 30 per cent. in shipments of creosote from England and Germany, whence comes all but a small part of the imported oil used by wood-preserving plants in this country, American manufacturers have taken steps which, says a report compiled by the forest service of the National Department of Agriculture, it is estimated will increase production of the domestic article by about 25 per cent. The imported oil ordinarily forms about 65 per cent. of the total used in the United States, where creosote is the most important wood preservative. The statistics gathered show that wood preserving is one of the most rapidly advancing industries in the country. In 1895 there were 15 plants in the United States; in 1914 there were 122 plants of all kinds, 100 being of the pressure-cylinder type. Ninety-four of these plants last year used more than 79,000,000 gallons of creosote oil, more than 27,000,000 pounds of dry zinc chloride and nearly 2,500,000 gallons of other preservatives, such as coal tar and crude oil, treating a total of nearly 160,000,000 cubic feet of timber, an increase of about 7,000,000 cubic feet over 1913, and of 35,000,000 cubic feet over 1912. The most important consumers are the large plants in which railroad ties are treated.

Shale Near Staunton.

Staunton Business League, E. B. Adams, secretary-manager, Staunton, Va., writes to the MANUFACTURERS RECORD as follows:

"There has recently been discovered and fully tested out a deposit of shale near this city. We have secured reports on this shale, and find that it is capable of being made into a good dry pressed brick; excellent rough tapestry, gun-metal brick; first-class shale wire-cut brick; good hollow building and drainage tile and satisfactory paving brick. We have full reports on hand for those who might be interested. We would like to get into communication with parties interested in opening a brick plant, and if you can be of assistance to us we will greatly appreciate your kindness."

Hamilton county, Tennessee, has nearly $12,000 invested in motor trucks used in road construction.

MODERN PHOSPHATE ELEVATORS AT TAMPA TERMINALS OF SEABOARD AIR LINE RAILWAY.

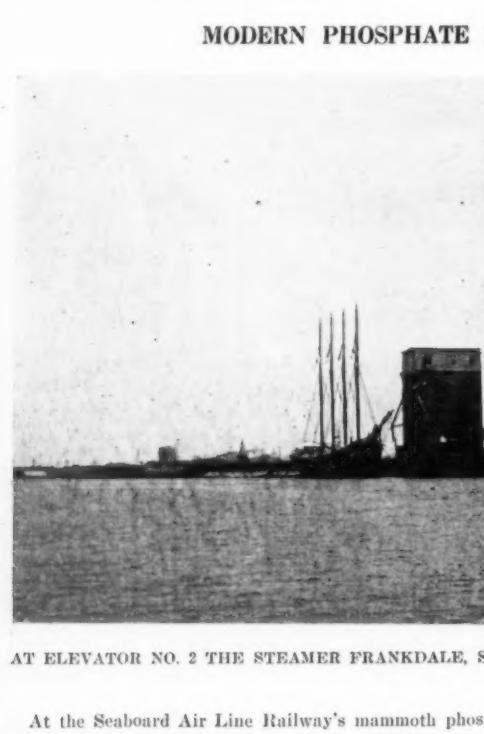
AT ELEVATOR NO. 2 THE STEAMER FRANKDALE, SHOWN IN THE ILLUSTRATION, WAS LOADED AND READY TO SAIL WITH A CARGO OF 5262 TONS OF PHOSPHATE WITHIN TEN HOURS AFTER DOCKING.

At the Seaboard Air Line Railway's mammoth phosphate elevators, two in number, at Tampa, Fla., ships from all quarters of the globe drop anchor and in a few hours are loaded with immense cargoes of phosphate rock for shipment to all parts of the world.

These elevators are located on the west side of Seddon Island, and have a dockage space of 1300 feet, with a minimum water depth of 24 feet at mean low tide.

The two elevators differ only in type of construction and loading capacity, the mechanical operation of each being the same. The older or first erected elevator is of wooden closed-in type, with a storage bin of 3000 tons capacity and a loading capacity of 350 tons per hour, while number two, erected in 1913, is of the latest improved steel construction, with a loading capacity of 700 tons per hour, and is used entirely in loading ships direct from cars. The accompanying illustrations well present the situation.

The new elevator, constructed at a cost of about $100,000, is a steel-frame structure, 37x37 feet and about



STEAMER KIM LOADING AT ELEVATOR NO. 2 OF THE SEABOARD AIR LINE RAILWAY AT TAMPA WITH 9875 TONS OF PHOSPHATE.

90 feet high, consisting of five stories. All stories are of open steel framework except the second and top stories. These are enclosed with No. 22 gauge galvanized-iron siding. The foundation consists of heavy 12x12-inch creosoted framing on creosoted piles. The roof is covered with prepared roofing.

The new elevator is equipped with two sets of conveyors, one on either side, consisting of an endless chain of buckets that carry 1000 pounds of phosphate. This equipment is similar to that in the older elevator, but having two sets of conveyors instead of one, it becomes two plants in one, with double the loading capacity. The buckets are loaded at the rate of 14 to the minute, and with the two sets of conveyors working at the same time a total of 28,000 pounds of phosphate is carried from the hoppers to the chutes every minute. The cargo is then carried to the top of the elevator and the buckets are automatically dumped into a chute that extends to the vessel and is divided into two parts. The entire amount can either be made to pass through one chute or can be divided and sent through both of them and distributed in different parts of the vessel at the same time.

Connected with the elevator is an automatic switch that takes care of the cars as fast as they are discharged. A string of 20 cars are brought to the elevator and put at the bottom of the incline leading to the hopper bin. These cars are drawn up to the bin by cables in lots of one, two, four, or any number they may see fit. They are then dumped and let loose and go down an incline, where they throw an automatic switch, and as soon as the grade force is lost they are seen to move backward over the switch and are placed on a siding to await an engine to take them away. This does away with the need of an engine in the yard to handle the cars while loading, except that they are needed to bring them to the elevator with the cargo and then take them away as soon as the siding is filled with empties.

These elevators are equipped with two lines of noiseless conveyors, each with a capacity of approximately 350 tons per hour, and were furnished by the C. W. Hunt Company, West New Brighton, N. Y. The steel work for the elevators was fabricated by the Chesapeake Iron Works, Baltimore, Md.

Tobacco Trade of the World.

The United States is the greatest producer of tobacco in the world, and the greatest exporter, the greatest importer and the greatest consumer. Our production of leaf of all sorts averages somewhat more than 1,000,000,000 pounds a year, having a value to the producers of about $100,000,000. An enormous quantity is exported—considerably more than a third of the production in normal years—for the sales of tobacco abroad are excelled by only seven of the many products America sends to other countries. These tobacco exports exceed in value such items as cotton manufactures, electrical machinery, paper and paper products, and leather and leather manufactures.

The dislocation of trade resulting from the war has had its effect on these tobacco sales, however, just as it has upon the exports of many other items. The sales of unmanufactured leaf have suffered most, and these sales represent the bulk of our tobacco exports. In the first place, it is practically impossible to ship leaf to some of the belligerents at all, and in the second place, the factories in the warring countries that are accessible are not taking their usual supply of leaf, probably because sufficient labor cannot be spared to manufacture it. Our manufactured tobacco is holding its own in spite of the war, thanks largely to increasing demands from the Far East and Oceania. In the actual war zone the increased consumption by the men in the field is more than offset by the economies that must be practiced by non-combatants.

American Bank Reporter.

The March edition of the American Bank Reporter is at hand. For 79 years this standard financial reference book has been published, all the while steadily advancing in excellence of contents and in general appearance. The present issue is garbed in blue cloth, with silver lettering, and the presswork is of the usual high quality. It contains an alphabetical list of all banks in the United States and Canada, arranged by States and provided with thumb index. Furthermore, it gives the names and addresses of the principal loan, trust and investment companies, lists of attorneys and bank officers, a synopsis of banking and commercial laws, and there are also numerous maps of States and Territories, besides a map of Canada. The publisher is the Stuerer Publishing Co., 149th street and Bergen avenue and 5 Beekman street, New York.

Petroleum in the Southwest.

The Gulf Refining Co., with general offices at Pittsburgh, Pa., has published a valuable booklet containing the statistics of production of petroleum in Oklahoma, Texas and Louisiana in 1914, the year in which the production of petroleum in the Southwest increased by 43,480,927 barrels over that of 1913, or at the rate of 46.5 per cent. In addition are presented facts and figures of vessel shipments of oil from Gulf ports, fuel oil consumption by Texas and Louisiana railroads and other interesting data. A number of half-tone engravings are used as illustrations in the volume.

"Hayne."

"Hayne" is to be the name of what is now known as Spartanburg Junction, where the Southern Railway's line from Ashville intersects its Washington-Atlanta line. This change of name has been ordered by President Fairfax Harrison of the Southern Railway Co., in memory of Robert Y. Hayne of South Carolina, the pioneer 75 years ago of the movement for the construction of a railroad across the mountains from South Carolina to the middle West.

Interstate Cottonseed Crushers.

The program for the nineteenth annual convention this week at Birmingham, Ala., included, in addition to addresses of welcome by City Commissioner James Weatherley of Birmingham, President Crawford Johnson of the Birmingham Chamber of Commerce and C. W. Ashcraft of Florence, Ala., with response by J. J. Culbertson of Paris, Tex.; the annual address of President C. L. Ives of New Bern, N. C., and the report of Secretary Robert Gibson of Dallas, Tex., the following papers:

"Publicity," by Henry L. Staples, Richmond, Va.

"The Federal Reserve System," by Oscar Wells, Birmingham, Ala.

"Refining of Oils," by Dr. Charles Baskerville of the College of the City of New York.

"Relations of the Cottonseed Crusher to the Farmer," by George Holderness, Tarboro, N. C.

"Moisture as a Factor in Grading Cottonseed," by H. T. Poe, Department of Agriculture, Washington, D. C.

The program also called for reports of committees by C. L. Ives, New Bern, N. C.; J. J. Culbertson, Paris, Tex.; Jo W. Allison, Dallas, Tex.; P. G. Claiborne, Dallas, Tex.; E. T. George, New Orleans, La.; E. P. McBurney, Atlanta, Ga.; W. P. Battle, Memphis, Tenn.; C. P. Reid, Little Rock, Ark.; J. G. Flash, New York city; S. J. Cassels, Montgomery, Ala.; G. W. Covington, Jackson, Miss.; C. W. Ashcraft, Florence, Ala.; Thomas C. Law, Atlanta, Ga.; J. M. Macdonald, Cincinnati, O.; James Sloan, Memphis, Tenn.; John Aspergren, New York city; Dr. Felix Paquin, Galveston, Tex.; W. A. Reynolds, Charlotte, N. C.; C. A. Covey, Eufaula, Ala.; J. B. Hildebrand, Little Rock, Ark.; C. Jones, Pensacola, Fla.; E. E. Chandler, Chicago; C. M. Hallman, Louisville, Ky.; B. E. Eskridge, Baton Rouge, La.; C. R. Strain, Tupelo, Miss.; Julius Davidson, Kansas City, Mo.; C. A. Johnson, Tarboro, N. C.; Franklin Ives, Cincinnati, O.; J. W. Du Pree, Oklahoma City, Okla.; J. M. Aydelotte, Oklahoma City, Okla.; W. B. West, Columbia, S. C.; J. H. Du Bose, Memphis, Tenn., and C. C. Littleton, Gainesville, Tex.

Southwestern Electrical and Gas Association.

Among the papers to be presented at the eleventh annual convention this week at Galveston, Tex., of the Southwestern Electrical and Gas Association are:

"The Economic Limit of the Public Utility Repair Shop," by V. W. Berry, general superintendent Northern Texas Traction Co., Fort Worth, Tex.

"Track Reconstruction and Welding Rail Joints," by G. W. Smith, engineer San Antonio Traction Co., San Antonio, Tex.

"The Track Eternal," by R. R. Brown, superintendent maintenance of way Dallas Consolidated Electric Street Railway, Dallas, Tex.

"Welfare and Educational Work Among Employes," by Richard Meriwether, general superintendent Dallas Street Railways, Dallas, Tex.

"Modern Commercial Distribution," by Martin J. Wolf, general sales manager W. N. Matthews & Bro., Inc., St. Louis, Mo.

"What the Southwestern Electrical and Gas Association Can Do for Me," by A. V. Wainwright, vice-president and general manager Abilene Gas & Electric Co., Abilene, Tex.

"The Advertising Influence of the Employe," by F. R. Slater, general superintendent Texas Power & Light Co., Dallas, Tex.

National Association of Manufacturers.

The twentieth annual convention of the National Association of Manufacturers will be held in New York city May 25-26. William Howard Taft, former President of the United States; Senator Warren G. Harding of Ohio, Dr. Eugene L. Fisk, M. W. Alexander of the General Electric Co. and Arthur D. Little will be among the speakers. There will be a general discussion from the floor on all topics, and reports will be read on fire and accident prevention, union labor, immigration, uniform State laws, trademarks and copyrights, and industrial betterment.

Good Roads and Streets

SOUTHERN HIGHWAY ACTIVITIES.

Details of Week's Progress in Improvements in City and Country.

Further details of road and street undertakings and bond issues mentioned below are given under the headings Construction Department and New Securities, published elsewhere in this issue.

The MANUFACTURERS RECORD invites from its readers information about road and street work projected or under way, photographs of good roads and discussions of matters pertaining to the betterment of the highways of the South.

Bonds Voted.

Dobson, N. C.—Surry county, Elkin township, voted $35,000 bonds to construct roads.

Fort Meade, Fla.—City will issue $58,000 bonds for street paving.

Fort Myers, Fla.—Lee county voted $177,500 to hard surface 42 miles of road.

Henderson, N. C.—Vance county voted $50,000 bonds to construct roads.

Hertford, N. C.—City will issue $8000 bonds for street paving.

Houston, Tex.—Halifax county, Red Bank Magisterial District, voted $50,000 road bonds.

Newport, Tenn.—Cocke county voted $200,000 bonds to construct roads.

Roxboro, N. C.—Person county, Roxboro township, voted $75,000 bonds to construct roads.

Stealey Heights, P. O. at Clarksburg, W. Va.—City voted $30,000 bonds to pave streets.

Tallahassee, Fla.—City voted $34,000 bonds to pave streets.

Timpson, Tex.—City voted $10,000 bonds to construct cement sidewalks.

Bonds to Be Voted.

Austin, Tex.—City will vote June 9 on $425,000 for street improvements.

Carthage, N. C.—Moore county, Sandhills township, votes June 15 on $5000 bonds to construct roads.

Cuero, Tex.—De Witt County Road District No. 4 will vote on $57,000 bonds to construct roads totaling 28 miles.

Madill, Okla.—Marshall county, O'Dell township, votes June 9 on $138,000 bonds to construct roads.

Sherman, Tex.—Grayson County Road District No. 4 votes June 19 on $60,000 bonds to gravel roads.

Contracts Awarded.

Alexandria, La.—Rapides parish awarded contract for 28 miles of gravel roads to cost $83,000; $100,000 available.

Anderson, S. C.—City awarded $54,600 contract to lay 28,000 square yards vitrified brick paving and $91,590 contract to lay 64,500 square yards of sheet asphalt paving; total cost $146,000.

Angleton, Tex.—Brazoria County Road District No. 6 awarded $100,000 contract to construct 30 miles of shell and gravel road.

Baltimore, Md.—City awarded $5865 contract to build road.

Baltimore, Md.—City awarded $42,183.20 paving contract.

Bryson City, N. C.—Swain county awarded contract to construct eight miles of roads; $100,000 available.

Frederick, Md.—Frederick county awarded $12,085 contract to construct 1¼ miles of State-aid road.

Greenville, S. C.—City awarded contracts for 70,000 square yards of street paving, 20,000 square yards of sidewalk paving, 25,000 linear feet of granite curbing, 10,000 linear feet combination cement curb and gutter; total $29,750.

Independence, Va.—Grayson county awarded $7500 contract to construct four miles of graded road.

Louisville, Ky.—City awarded $17,800 paving contract.

New Orleans, La.—H. H. Shackelford Company, Bayou Sara, La., has $14,664 contract to construct earth road.

Petersburg, Va.—City awarded contract to construct 3000 yards of asphaltic concrete paving; $3500 available.

Richmond, Va.—Henrico county awarded contracts for 18.10 miles of roads.

Russellville, Ala.—Franklin county awarded $50,000 contract to construct 18 miles of road.

Wayne, W. Va.—Wayne county awarded $53,400 contract to construct paved road; three miles; brick on concrete base.

West Palm Beach, Fla.—City awarded $69,691 contract to pave streets, etc.; street improvements include 40,000 square yards macadam pavement, 29,900 square yards of rock surfacing and 5544 cubic yards of grading.

Contracts to Be Awarded.

Benton, Tenn.—Polk county will improve and build additional roads.

Bowling Green, Ky.—Warren county will reconstruct 20 or more miles of "Dixie Highway;" cost about $800 per mile.

Boydton, Va.—Mecklenburg county will construct 40 miles of road.

Chattanooga, Tenn.—Lookout Mountain Pike Commission receives bids until May 31 to construct 2.13 miles of concrete pike, etc.

Columbia, Tenn.—City receives bids until May 25 to construct about 8900 square yards asphalt-concrete on macadam base, 14,200 square yards asphalt-macadam mixed method on macadam base and 3800 feet combined curb and gutter.

Conway, Ark.—City receives bids until May 21 to construct 8000 yards of concrete paving in Street Improvement District No. 3.

Hot Springs, Ark.—United States Department of Agriculture, Forest Service, Arkansas National Forest, has estimates for constructing about 200 miles of roads and trails in several counties.

Louisville, Ky.—City receives bids until May 27 to pave four blocks with asphalt; estimated cost $13,000.

Marshall, Tex.—Harrison county receives bids until May 24 to construct 25 miles of graveled and macadam highway in Road District No. 1.

Southport, N. C.—Brunswick county, Smithville township, receives bids until May 24 to construct about 16 miles of sand-clay road.

Towson, Md.—Baltimore county will improve 2½ miles of road in Fifth District; total cost $7000.

Uvalde, Tex.—City receives bids until May 27 to pave about 6000 square yards of street with waterproof pavement, including 1300 linear feet of concrete curbing.

Waverly, Tenn.—Humphreys county will construct 225 miles of road, etc.; $225,000 available.

Weston, Mo.—City will open bids June 1 to construct macadam paving with bituminous binder on two streets; total cost $17,000.

Wichita Falls, Tex.—City will construct about two miles of concrete pavement.

Winter Park, Fla.—City has $20,000 available for paving.

Roads for Arkansas National Forest.

Estimates have been completed for the construction of roads and trails on the Arkansas National Forest in Perry, Saline, Garland, Montgomery, Polk, Scott and Yell counties, Arkansas. A small air drill outfit mounted on wheels or a tractor will be wanted, and manufacturers are invited to send quotations to R. C. Hucy, acting forest supervisor, Hot Springs, Ark.

To Build 225 Miles of Roads.

The construction of 225 miles of highways is proposed by the commissioners of Humphrey county, Tennessee, which recently voted $225,000 bonds for road building. No details have been determined, and the engineer has not been engaged. James T. Anderson, Waverly, Tenn., is chairman of the county's highway commissioners.

State highway officials of Arkansas expect that 503 miles of road costing $2,703,000 will be built in the State this year.

With one cargo 9000 barrels of resin, valued at $59,085, were shipped last week from Pensacola, Fla., to Norway.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

HUGE EQUIPMENT ORDERS.

Pennsylvania Railroad to Spend Many Millions for Cars and Engines.

The Pennsylvania Railroad Co. announces that it has placed contracts for 14,043 freight cars for its lines both east and west of Pittsburgh, the total value of the contracts being approximately $16,000,000. This is in line with previous announcements that the company would expend perhaps $20,000,000 for equipment this year, because there are still some locomotive contracts to be let, although 25 Mikado type engines have already been ordered from the Lima (O.) Locomotive Corporation. The car orders have been distributed as follows: Pressed Steel Car Co., Butler, Pa., 2800 cars; American Car & Foundry Co., St. Louis, Mo., and Berwick, Pa., 3443 cars; Standard Steel Car Co., Pittsburgh, 1000; Cambria Steel Co., Johnstown, Pa., 3300; Haskell & Barker Car Co., Michigan City, Ind., 2500; Ralston Steel Car Co., Columbus, O., 1000. The orders include 3500 box cars, 324 refrigerator cars, 3000 gondola cars and 7219 hopper cars. Contracts for 50 locomotives and 45 passenger cars are yet to be awarded.

Southern Pacific Railway has ordered 6500 tons of tie plates from the Tennessee Coal, Iron & Railroad Co., Birmingham.

Jackson (Miss.) Railway & Light Co. has ordered 5 single-truck street cars from the Southern Car Co., High Point, N. C.

Western Maryland Railway has put out inquiries for 15 Mallet locomotives.

Fort Worth & Denver City Railway has ordered 1200 box cars, 300 stock cars and 200 steel gondola cars from the Haskell & Barker Car Co., Michigan City, Ind. It has also ordered from the Baldwin Locomotive Works, Philadelphia, 10 Mikado type engines, with superheaters.

Wilmington, Brunswick & Southern Railway is reported to have ordered a locomotive and 5 box cars from the Georgia Car & Locomotive Co., Atlanta.

Chicago, Burlington & Quincy Railroad has ordered 1353 tons of bridge steel from the Fort Pitt Bridge Co.

Baltimore & Ohio Railroad has ordered 1800 tons of rails from the Illinois Steel Co., Chicago, which has also received an order for 1200 tons from the Missouri, Kansas & Texas Railway.

Missouri, Kansas & Texas Railway has ordered from 2000 to 2500 tons of bridge steel from the Wisconsin Bridge Co., Milwaukee.

Roby & Northern Railroad, L. C. Eastland, general manager, Roby, Tex., wants cars and engines.

Will Haul Farm Products.

The Florida East & West Coast Railway Co., which recently completed a 52-mile line from Bradentown and Manatee to Arcadia, Fla., has established a regular passenger and freight service over it. Connection with the Seaboard Air Line is made at Bradentown and Manatee. Arcadia is on the Atlantic Coast Line. The Seaboard stations at the first two points will be used, but one will be erected at Arcadia. Others are already under construction at Myakka City and Pine Level. Telegraph and telephone service is to be provided, and preparations are being made to carry mail. It is said that a large amount of freight in the shape of farm products is assured.

Richmond to City Point.

Plans are under consideration at Richmond, Va., for the provision of direct transportation facilities between that city and City Point, which is also on the James River, but on the southern bank and opposite Bermuda Hundred. One plan is to operate a steamboat line, but another which is being actively contemplated is to convert to electric operation nine miles of the Tidewater & Western Railway from Bermuda Hundred to Chester, Va., connecting there with the Richmond and Petersburg electric railway and operating through cars over this new route. A ferry would have to be provided to cross the river between Bermuda Hundred and City Point. The distance covered would be from 22 to 23 miles. An investigation of the railway proposition has been made by officers of the Tidewater & Western and the Virginia Railway & Power companies. L. M. Williams is president and T. M. R. Talcott general manager of the former, and T. S. Wheelwright is president and C. B. Buchanan general manager of the latter. If the projected facilities are established it is expected that there will be considerable travel over the route, as the Dupont Powder Co. has several thousands of men employed at its works at City Point who would, it is said, frequently visit Richmond on both business and pleasure trips.

Georgia Railroad Deal Declined.

The proposition that the Georgia Railroad & Banking Co., owner of the Georgia Railroad, which is leased to the Louisville & Nashville Railroad, should purchase the Savannah & Northwestern Railway, formerly the Brinson Railway, and make it part of its line by building a 30-mile extension from St. Clair to Camak, Ga., was rejected at the recent meeting of the first-named corporation at Augusta. It is also said that a lease was declined.

The proposed deal was based upon the argument that the acquisition of the road would afford the Georgia Railroad a direct route from Atlanta to the sea at Savannah. No official statement was made concerning the reasons for turning down the proposition.

It is now reported that the owners of the Savannah & Northwestern will proceed with its extension to Camak, and that when the line is completed there it will be operated by the Georgia Railroad. It is also intimated that considerable money might be expended to build the new line throughout up to high standards for the handling of heavy traffic, both passenger and freight. James Imbrie, 45 Broadway, New York, is chairman of the board of the Savannah & Northwestern Railway, and J. H. Hunter of Savannah is president.

Roby & Northern.

At Roby, Tex., the citizens have raised a bonus of about $12,000 to secure the Roby & Northern Railroad, which will be five miles long from Roby to North Roby, connecting there with the Texas Central Railroad, now part of the Missouri, Kansas & Texas Railway system. Surveys have been completed, and contracts are awarded for construction to begin immediately. The railroad company has been granted right of way in Roby and land for a depot site. The building of the line will require the erection of two pile trestles, one of them 60 feet long and the other 260 feet long. Locomotives and cars are wanted. Rails, switches, drain pipe and some of the necessary ties have been bought. George L. White of Hillsboro, Tex., is president of the company, and L. C. Eastland of Roby is general manager. Other directors are George Sturgis, C. F. Beavers, O. C. Walker, treasurer; J. McWhirter, secretary; L. H. McCrea, vice-president and general counsel, and W. R. Timmons, all of Hillsboro.

Houston, Richmond & Western.

Ed. Kennedy, president and general manager, Houston, Tex., says that the Houston, Richmond & Western Traction Co. proposes to build an electric railway 30 miles long from Houston to Richmond, Tex., which will demand the construction of a bridge over the Brazos River. The route selected is level. The other directors are J. C. Eganhouse, treasurer; D. R. Beatty, F. P. Eastburn and W. W. Thomas of Houston.

The Nashville (Tenn.) Traction Co. has opened for service a three-mile section of its line, which is being constructed on Fifth avenue and other thoroughfares. The section now put in operation is on Fifth avenue from Church street to Mulberry street, to Second avenue, to Lafayette street, to the city boundary at its intersection with the Murfreesboro turnpike.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating

West Point Additional Mill.

The West Point (Ga.) Manufacturing Co. will erect buildings as follows: 750x132-foot building, about half of this length to be three stories for spinning and about half to be one story and basement for weaving; 450x100-foot cotton warehouse; all of slow-burning mill construction. This company will also build a plant to generate steam for heating, slashing and fire protection. Plans and specifications are being prepared by J. E. Sirrine, Greenville, S. C., the architect-engineer in charge. The West Point corporation was mentioned in April as to invest about $500,000 for an additional mill, to have 20,000 spindles and other machinery for weaving cotton duck.

The Cotton Movement.

In his report for May 14 Col. Henry G. Hester, secretary of the new Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 287 days of the present season was 14,489,818 bales, an increase over the same period last year of 4034 bales. The exports were 7,501,601 bales, a decrease of 892,944 bales. The takings were, by Northern spinners, 2,630,591 bales, an increase of 118,144 bales; by Southern spinners, 2,778,108 bales, a decrease of 126,149 bales.

Anchor Duck Mills.

Anchor Duck Mills, Rome, Ga., expect to complete during the next week the company's additional building announced in February. This structure is 200x100 feet, with a 50x40-foot ell, costing from $20,000 to $25,000. Lockwood, Greene & Co., Boston and Atlanta, are the architects for the building, and most of the machinery to be installed will be furnished by the Whiting Machine Works, Whitinsville, Mass.

Embroidery Lace and Insertion.

For the purpose of manufacturing embroidery lace and insertion, the Waldensian Swiss Embroidery Co., Valdese, N. C., has been incorporated with $125,000 capital stock. The incorporators are Henry Clott of New Bergen, N. J.; August Clott and Alex. Constantin of Weehawken, N. J.

Seeking Knitting Mill Location.

The establishment of a knitting mill in the South is proposed by H. P. Butcher, 24 Taylor street, Newark, N. J., but the location has not been decided upon. Organizations interested in securing enterprises of this character for their cities are invited to correspond with Mr. Butcher.

For a Finishing Plant.

A finishing plant will be built by the Irene Mills of Gaffney, S. C., the contract for building having been awarded to Curry & Son of Gaffney. The building will be of brick construction, 250 feet long by 115 feet wide, one story and basement.

Textile Notes.

Mt. Vernon-Woodberry Mills, Baltimore, Md., has resumed operating Druid mill, idle more than a year.

This plant requires 400 operatives in its spinning and weaving departments. At present only the yarn department is operating at full capacity, but soon the looms will begin to weave. The company's Woodberry and Park mills, which have been operating four days each week, have now begun on full time. It is understood that the increased activity is due to large orders for khaki cloth for shipment to European armies.

Wiscassett Mills Co., Albemarle, N. C., is reported as to install 12,000 spindles and accompanying machinery in its additional mill lately reported. Previous reports stated this company had let contract to Holdbrooks & Marshall, Salisbury, N. C., for constructing a three-story mill building.

Chamber of Commerce, Thos. P. Boone, secretary, Johnson City, Tenn., is interested in a plan for organizing a $350,000 company to build a cotton factory and two companies to build knitting mills.

Buck Creek Cotton Mills, Siluria, Ala., noted last week as to install the electric drive, has been generating its electricity and has now contracted to purchase electricity from the Alabama Power Co.

The Amazon Cotton Mills, Thomasville, N. C., will not build a large addition, the recent report to that effect having been an error. The company has built a small packing-house.

Hamburger Cotton Mills, Columbus, Ga., now operatgin 10,000 spindles, will add 8000 spindles.

FOREIGN NEEDS

Want Agencies for Spain.

Marques & Co., Paseo Sagasta 24, Zaragoza, Spain, write to the MANUFACTURERS RECORD as follows:

"We are anxious to get agencies for Spain from manufacturers and exporters of your country. The products of your country which interest us most are: Wire; nails; commercial iron; sheet metal of all kinds; oil and lubricating grease, etc., and in general manufactured goods and products useful to any kind of industry and to agriculture as well."

Machinery Wanted in Russia.

Ekra, 32 Karpowka, Petrograd, Russia, writes to the MANUFACTURERS RECORD as follows:

"For a company in process of formation I would like to get offers for machinery for making window curtains, and I beg you to aid me. Later on machinery for making other kinds of curtains and accessories will be wanted. Novelties in office furniture and supplies always attract our attention."

For Corn Exporters.

Poblet & Mundet, Muralla 59, Altos, Habana, Cuba, write to the MANUFACTURERS RECORD as follows:

"We write you asking that you put us in communication with corn exporters of your city that may not be represented on this island. You may send us a list of such exporters and we will write them, giving any information necessary regarding this market, as well as sending them our banking and commercial references."

Fishing Tackle, Tools, Iron Work.

Fred W. Doss, Moscow, Russia, writes to the MANUFACTURERS RECORD as follows:

"Please send me addresses of manufacturers of tools for carpenters, iron work, fishing tackle and hooks."

Wants Card Covering, Etc.

Thos. Abbott, Hotel Telegrafo, Habana, Cuba, writes to the MANUFACTURERS RECORD as follows:

"I would be thankful if you would put me in touch with manufacturers of preparing machinery for cotton spinning, as I require card covering, etc."

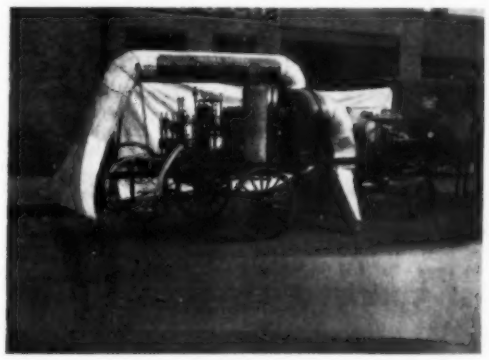
MECHANICAL

Illustrations and descriptions having news value pertaining to developments in machinery, mechanical devices and inventions will be considered for use in this department.

Road Oil Distributor.

Latest improved features embodied in the compressed-air type of oil distributor developed by the Uniform Asphalt Distributor Co. of Meridian, Miss., provides for the even and uniform distribution of any grade of asphaltic oil that can be made sufficiently liquid to be forced back to the nozzles by the air pressure in the oil tank. This is said to be rendered possible by the heated air under pressure through the air nozzle atomizing any material that may be moved to it. In applying light oils the heating is dispensed with.

As shown in the accompanying illustration, a suction nozzle just ahead of the rear wheels of the truck lifts and conveys dust through a pipe that discharges over and immediately behind the oil-distributing nozzles, spreading the particles of dust on the surface of the oil after it reached the road. Elimination of the dust



"UNIFORM" ROAD OIL DISTRIBUTOR.

not only secures a direct contact with and adhesion of the oil to the road, but by depositing the dust on the surface of the oil immediately after it is spread prevents the oil running from the crown of the road toward the sides before it can be covered with screenings or crushed stone chips.

By means of a governor automatic control and adjusting device an even and uniform distribution of material in any desired quantity can be obtained. A great saving in oil is claimed to be effected through the use of this automatic regulation of the quantity to be applied, as it operates relative to the speed of the truck. Without interfering with the automatic control or stopping the machine, a manual control mechanism is provided for regulating the quantity of oil applied and for entirely closing any individual nozzle if necessary.

The distributing apparatus, comprising a gasoline engine, suction fan, air compressor, hot-air mechanism, valves and nozzles, is mounted on a spring truck, which, in operation, is attached to the rear of an ordinary tank wagon or truck and connection made therewith by flexible metallic hose. An additional air line is provided between the oil tank and distributor proper for producing pressure necessary to force the oil from the tank back to the nozzles. The oil is carried through the hose to the header, and passes through the valves into a flexible metal hose to the nozzles. The compressed air, coming in contact with the oil at the point of discharge, atomizes it and produces a uniform arc of oil spray. Degrees of atomization may be regulated by the pressure through the reducing valve and adjustment screw. The nozzles, which are placed 12 inches above the road, are constructed so as to spray two feet of road surface. Ordinarily the exhaust from the gasoline engine furnishes enough heat to keep the oil flowing freely, but a gasoline burner is attached to a heating coil to further aid in keeping the material at the proper liquid consistency. Required heat for the various grades of material is maintained and regulated by the thermometer set in the air line where it leaves the coil heater. By means of the graduated scale and indicator on top of the valve the quantity of oil being distributed by each nozzle is shown at all times.

Any width of from two to ten feet can be covered by the standard arrangement of the four nozzles. This may be increased to sixteen feet by linking longer tubes connecting the nozzles with the oil valves. The total weight of the machine, including truck, is about 3000 pounds.

Only one man is required to operate the distributor, as he is given a position where all parts of the apparatus are under his immediate control and observation.

Contract for resurfacing with asphalt several of the roads in District No. 1, Lauderdale county, Meridian, Miss., was recently awarded by the Good Roads Commission to the Uniform Asphalt Distributor Co.

A New Line of Portable Electric Drills.

The Western Electric Tempo line of electric portable drills, manufactured by the Western Electric Co., 463 West street, New York, are said to be especially designed to give long and efficient service under severe conditions and hard usage, and are essentially all-around tools. They have the general shape of an ordinary breast drill, are compact in design and of light, well-balanced weight, making easy handling, which is further facilitated by the electric switch placed conveniently near the handle.

A special feature is the ease with which the motor may be reversed when the drill sticks. Whether working at high or low speed, a touch of the switch reverses the motor, loosening the drill or sending it ahead as required.

Western Electric Tempo drills may be used wherever holes are to be drilled or tapped, and particularly where the material cannot be carried to a drill press and for working inside objects or upside down and in other inconvenient places.

The motors are built to operate on either direct or alternating current at standard voltages. Connection is made to the nearest lamp socket by means of a flexible cord and attachment plug.

The two principal sizes are Model B and Model C, the former having one motor and the latter having two motors, making it adapted to the hardest kinds of work. Motors are of the high-speed commutator type, having nickle forging steel shafts and built-up cores of magnetic steel. The commutator consists of highly conducting hard drawn copper bars of ample carrying capacity, forced together under high pressure and insulated by selected mica. The bearings are Non Gran Bronze, a highly efficient and durable metal for high-speed work. Model B has capacity up to and including three-eights inch in steel, cast iron or similar substances, and weighs only 12 pounds complete. Model C has a capacity of one-half inch in steel, has two speeds and weighs, without the chuck, about 19 pounds.

A tool post grinder, a valve grinder for automobile engines and a buffer and polisher is also included in the Western Electric Tempo line.

A Lincoln Memorial Souvenir.

The George A. Fuller Construction Co., Washington, D. C., general contractor for the erection of Lincoln Memorial, now nearing completion at Washington, has issued a handsome booklet containing a reproduction of the autographs of the signers of the Testimonial to Abraham Lincoln placed in the cornerstone of the Lincoln Memorial on February 12 at the dedication ceremony. The signatures to the Testimonial are those of the President and his Cabinet, the members of Congress, the Chief Justice and Associate Justices of the Supreme Court, members of the Lincoln Memorial Commission, officers and members of the Grand Army of the Republic, the staff of the architect, the executive officer in charge and the builders. Included in the booklet are remarks by the speakers of the occasion. The frontispiece is a handsome color plate showing a general view of the Memorial as it will appear on completion.

Boone Fork Lumber Co.

About $250,000 is the price of timber land which the Boone Fork Lumber Co. of Elizabethton, Tenn., will develop. This company plans to manufacture 1,000,000 feet of lumber each month, and will install an equipment costing about $25,000. It has organized with $50,000 capital stock; W. S. Whiting, president, and C. K. Heywood, treasurer, both of Asheville, N. C.

Construction Department

IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter..

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is $25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

BRIDGES, CULVERTS, VIADUCTS

Ark., Jasper.—Newton County Commrs. let contract M. K. Orr of Harrison, Ark., at $24,000 to construct steel bridge over Big Buffalo River.

Ky., Elizabethtown.—Hardin County Commissioners, Elizabethtown, and Grayson County Commrs., Leitchfield, Ky., will construct bridge over Nolin Fork between 2 counties; length, 150 ft.; Champion Bridge Co. of Wilmington, O., submitted lowest bid at $2981 and Murphy Bros. of Bowling Green, Ky., for stone work and foundation; W. C. Montgomery and G. R. Smith, Bridge Commrs., Elizabethtown.

Ky., Elizabethtown.—Hardin County Commissioners, Elizabethtown, and Bullitt County Commrs., Shepherdsville, Ky., will construct bridge across Rolling Fork between 2 counties.

Ky., Henderson.—Henderson county will construct 11 steel and concrete bridges and 1 concrete culvert; S. A. Young, County Judge, receives bids until May 25; S. H. Kimmel, County Road Engr. (See Machinery Wanted.)

La., De Quincy.—Calcasieu Parish Police Jury has plans for bridge across Buxton Creek on road north of De Quincy; concrete; girder type; 3 spans, each 20 ft. long; 16-ft. roadway; clearance above mean water level of 8 ft.

La., Lake Charles.—Caesasieu parish bridge across Calcasieu River (bids lately noted for June 1) will comprise 6 spans reinforced concrete arches, with central double-leaf bascule span; one 30-ft. girder span approach on south end and 29 girder spans approach on north end; total length 1705 ft.; 20-ft. roadway; bituminous concrete wearing surface to deck; bascule operated by electric motors; electric lighting; 1½ mi. embankment fill approach, etc.; 3 small concrete bridges; cost of construction, including bridge, $150,000; F. H. Franklin, Bridge Engr.

Md., Baltimore.—City will reconstruct old Chase St. bridge on Bentalou St. over Western Maryland R. R.; Board of Awards receives bids until May 26; H. K. McCay, City Engr. (See Machinery Wanted.)

Okla., Tulsa.—Tulsa County Commrs. will probably let contract in about 90 days to construct lately-noted bridge across Arkansas River; structure 150 ft. long; reinforced concrete arches; cost within $200,000; Harrington, Howard & Ash, Consult. Engrs., Kansas City, Mo.; Lewis Cline, County Clerk.

Okla., Watonga.—Blaine County Commrs. let contract to Oregonia Bridge Co., Lebanon, O., and Oklahoma City, to construct steel bridge known as "Loy Bridge."

S. C., Sumter.—Sumter County Commrs. will engage Maj. W. L. Lee to supervise steel and concrete work on bridges over streams, which will be built from proceeds of $10,000 bond issue; P. M. Pitts, County Supvr. (Lately noted.)

Tenn., Memphis.—City will construct outfall culvert on Bayou Gayoso from pumping station to Wolf River; 1500 cu. yds. excavation; 1200 cu. yds. No. 1 concrete in culvert and apron; 3880 lin. ft. wood piling furnished; 3880 lin. ft. wood piling driven; estimated cost $21,170; bids opened May 18; E. H. Crump, Mayor; C. C. Pashby, City Clerk. (See Machinery Wanted.)

Tex., Galveston.—Gulf, Colorado & Santa Fe Ry., F. Merritt, Ch. Engr., decided to expend $55,104.18 for bridges, trestles and culverts. (See Railway Shops, Terminals, Roundhouses, etc.)

Tex., Houston.—Houston, Richmond & Western Traction Co., Ed. Kennedy, Gen. Mgr., will build bridge across Brazos River, in connection with 30 mi. electric railway from Houston to Richmond.

Tex., Roby.—Roby & Northern R. R. Co., L. C. Eastland, Gen. Mgr., Roby, will construct 2 pile trestles in connection with 5-mi. railway line from Roby to North Roby; one, a 60-ft. trestle 2 mi. from Roby; the other, a trestle 3 mi. from Roby; asks bids on trestles, on grading and operating equipment, etc. (See Machinery Wanted.)

Va., Richmond.—City let contract T. Javi-Perkins Construction Co. at $2388.25 to construct arch culvert over Reedy Creek, not including cement.

CANNING AND PACKING PLANTS

Ala., Eufaula.—J. T. Mainor, 401 Broad St., contemplates establishing fruit cannery.

Ark., Ruddells.—Arkansas Lime Co. is reported as interested in organizing company to build cannery.

Ga., Moultrie.—Moultrie Packing Co. will make additions to plant at cost of $30,000 to $50,000; increase storage capacity of hogs from 300 to 1000 daily, and of cattle from 50 to 100 daily; will not definitely decide plans for 30 days.

Ky., Louisville.—Biechner Preserving Co., capital stock $5000, incptd. by Herman Biechner, Edwin I. Nava and Edward M. Thoben.

N. C., Matthews, Route No. 26.—T. W. Dees and others contemplate establishment of cannery. (See Machinery Wanted.)

CLAYWORKING PLANTS

Ga., Thomasville—Brick.—Wm. H. Platt is interested in establishment of plant to manufacture brick. (See Machinery Wanted.)

Tenn., Kingsport—Bricks.—Kingsport Brick Corp. will establish tile plant; erecting several brick buildings adjoining plant, of which main structure will be 84x252 ft., 3 stories; machine shop 2 stories, 75 ft. square; engine and boiler-room 1 story, 30x60 ft.; clay storage-house 75x50 ft.; 10 or 12 kilns; let contract American Clay Machinery Co. of Bucyrus, O., to furnish clayworking machinery.

COAL MINES AND COKE OVENS

Ala., Birmingham.—Montevallo Domestic Coal Co., capital stock $10,000, incptd.; Arthur J. Watrous, Prest.; Chas. A. Tilley, V.-P.; Stillman B. Tilley, Secy.-Treas.

Ala., Montgomery.—Ray Coal Co., capital stock $3000, incptd.; W. F. Joseph, Prest.; C. L. Ray, V.-P. and Mgr.; Alva Fitzpatrick, Jr., Secy.-Treas.

Ala., Woodward.—Woodward Iron Co. is reported to have let contract General Machinery Co., local agent for Link-Belt Co. of Chicago, at about $30,000 to build fourth unit of coal washers; concrete and steel construction.

Ky., Whitesburg.—F. D. Buskirk, Cincinnati, O., will not organize company to develop coal lands in Letcher and Pike counties. (Recent report incorrect.)

Va., Blacksburg, Route No. 2.—Blacksburg Coal Co. (lately noted incptd., capital $5000) organized; N. M. Orr, Prest.; Seymour Price, Secy.-Treas.; succeeds Seymour Price & Co.; will develop 150 acres; installing machinery; estimated daily capacity about 10 tons at start.

Va., Lynchburg.—Ivy White Ash Coal Co., capital stock $150,000, incptd.; H. P. Adams, Prest.; C. M. Guggenheimer, V.-P.; Clinton DeWitt, Secy.-Treas.

W. Va., Bretz.—Elkins Coal & Coke Co., J. B. Hanford, Gen. Supt, Morgantown, W. Va., let contract to Roberts & Schaefer Co., McCormick Bldg., Chicago, to design and build Marcus patent coal tipple, with sreening and picking facilities, equipped with Rands patent shaking loading booms; electric power.

W. Va., Charleston.—Logan-Pocahontas Fuel Co., capital $500,000, incptd. by H. M. Bertolet and Y. S. Borden of Charleston, J. A. Huddleston and others.

W. Va., Coalwood.—Carter Coal Co., Geo. L. Carter, Prest., let contract to Roberts & Schaefer Co., McCormick Bldg., Chicago, to design and build large steel Marcus patent coal tipple, complete with screening and picking facilities, and 3 Rands shaking loading booms, for installation at shaft mine lately sunk; tipple to cost $60,000. (Geo. L. Carter previously noted to equip coal mine for development.)

W. Va., Grafton.—May Day Coal Co., capital $25,000, incptd. by Lawson Atarcher, Geo. W. White, Carl L. Curry and others.

W. Va., War.—Williams Pocahontas Coal Co., capital $50,000, incptd. by W. H. Johnson of War, W. T. Williams and F. W. Truscott of Charleston and others.

CONCRETE AND CEMENT PLANTS

Okla., Hartshorne.—Choctaw Cement & Lime Co. (C. S. Wingate and others) will purchase and complete cement mills about 1½ mi. south of Hartshorne, formerly operated by Choctaw Portland Cement Works. (Lately noted incptd. with $400,000 capital.)

COTTON COMPRESSES AND GINS

Ala., Attalla.—J. H. Arnold & Co. selected Attalla for construction cotton warehouse and compress plant; let contract to W. T. Christopher, Gadsden, Ala., for 400x250-ft. brick fireproof construction building for warehouse, compress and office; let contract to C. O. Duncan, Gadsden, for concrete foundations for machinery; building reported to cost about $10,000 and machinery about $30,000. (Lately noted.)

Ark., Maysville.—Farmers & Merchants' Gin Co., capital stock $15,000, incptd. by R. J. Wigley, W. E. Bailey and J. R. Hamm.

Okla., Tupelo.—Farmers & Merchants' Gin, capital stock $7000, incptd. by N. Joseph, R. E. Galloway, J. A. Vincent and others.

Tenn., Memphis.—J. A. Minga will erect ginhouse at Front St. and Adams Ave.; 1 story; cost $2000.

Tenn., Memphis.—Crawford Williamson Construction Co., Memphis, has contract to build $8000 ginhouse and engine and boiler-room; fireproof construction; machinery contract let to Gullett Gin Co., Amite, La. (See Machinery Wanted.)

Tex., Barbarossa.—Barbarossa Farmers' Gin Co., capital stock $9000, incptd. by Ferd Bading, Herman Henze and Carl Druebert.

COTTONSEED-OIL MILLS

Ala., Andalusia.—Andalusia Oil Mill, Frank Fielder, Mgr., is considering improvements to cost $15,000.

DRAINAGE SYSTEMS

N. C., Belhaven.—Pantego Farms Co., Winston-Salem, N. C., E. D. Vaughn, Prest., will construct canals and lateral ditches in connection with development of 1405 acres swamp lands. (See Land Developments.)

Tenn., Dyersburg.—Reeds Creek Drainage Dist., Dyers county, let contract to R. H. & G. A. McWilliams of Memphis, Tenn., and Chicago for 660,000 cu. yds. ditch excavation; Morgan Engineering Co., Engr., Memphis. (Bids lately noted.)

Tenn., Trenton.—Gibson County Drainage Dist. No. 2 will excavate by dredgeboat about 1,158,386 cu. yds. earth; bids until June 9; W. W. Powers, County Judge. (See Machinery Wanted.)

Tex., Victoria.—Victoria County Commrs.' Court authorized establishment of drainage district in northeastern section of county and election to vote on $790,000 bonds to construct drainage system; district comprises 73,000 acres.

ELECTRIC PLANTS

Ala., Scottsboro.—M. R. Stearns, representative of Chattanooga-Tennessee River Power Co., Chattanooga, Tenn., is making investigations relative to extending electric transmission system from Hale's Bar, on Tennessee River, to Scottsboro; may apply for 30-year franchise and contract for street lights.

Ark., Benton.—City, R. C. Bailey, Mayor, contemplates building street-lighting system in connection with proposed water-works. (See Water-works.)

Fla., Fort Meade.—City, J. J. Singleton, Secy. Bond Trustees, will issue $58,000 bonds for electric-light plant, street paving and extension of water and sewer systems.

Fla., St. Petersburg.—City will vote in June on granting electric-light franchise. Address The Mayor.

Ga., Lawrenceville.—City votes June 15 to determine whether to contract with Georgia Railway & Power Co. of Atlanta to furnish electric light and power.

Ky., Russell.—City Council is considering proposal submitted by Ohio Valley Electric Ry. Co. of Huntington, W. Va., to supply electricity.

Ky., Tompkinsville.—J. R. White, L. W. Preston and Ed H. Smith of Glasgow, Ky., purchased electric-light and ice plant.

Md., Salisbury.—Eastern Shore Gas & Electric Co., capital stock $750,000, incptd. by F. R. Hansell of Philadelphia, Pa., and Geo. H. B. Martin and S. C. Seymour of Camden, N. J.; plans to consolidate number of electric-light and power companies in Maryland and Delaware; applied to Public Utilities Com. for authority to acquire Salisbury (Md.) Light, Heat & Power Co. and Cambridge (Md.) Gas, Electric Light & Power Co. (Lately noted.)

Miss., Clarksdale.—City will vote on bonds to enlarge electric-light plant, etc. Address City Commrs. (See Water-works.)

Mo., Montrose.—City will construct electric-light plant and distributing system; invites bids until May 24 on entire plant and system or under 4 sections: Furnishing and installing oil-engine equipment in power-house; furnishing and installing electrical equipment in power-house; construction of power-house; erection of pole line distribution system; plans and specifications on file with City Clerk and Mayor of Montrose and with E. T. Archer & Co., Consit. Engrs., New England Life Bldg., Kansas City, Mo., and are obtainable for $2 per set.

Mo., Gallatin.—City is reported to have voted $17,000 bonds to extend and improve electric-light plant and water-works. Address The Mayor.

N. C., Hertford. — City, W. E. White, Mayor, will issue $12,000 bonds for electric-light system. Address W. C. Winslow, Clerk.

N. C., Plymouth.—City defeated lately-noted $12,000 bonds to construct electric-light system.

Okla., Bromide.—Board of Trustees retained Benham Engineering Co., Oklahoma City, Okla., to prepare estimates, plans and specifications for electric-light system and water-works; contemplates $15,000 bond issue.

Okla., Mangum.—City is considering ordinance providing for $100,000 bond issue for electric-light plant. Address The Mayor.

S. C., Winnsboro.—Board of Public Works is reported as contemplating construction of 22,000-volt primary line from plant of Parr Shoals Power Co. on Broad River to Winnsboro; also to erect substation and establish 24-hr. service; T. R. Ellison, Supt.

Tenn., Milan.—City will expend about $800 to improve present light and water system; will need electrical equipment. Address J. D. Denney, Alderman; bonds lately noted voted; needs engineer. (See Machinery Wanted.)

Tex., McGregor.—Texas Power & Light Co. of Dallas, Tex., purchased electric-light plant at McGregor; will build transmission line from Waco to Temple and tap line from Eddy via Moody to McGregor.

Tex., North Pleasanton, P. O. at Pleasanton.—L. B. Myers of El Reno, Okla., and others are reported interested in installation of electric light and power plant and ice factory to cost $40,000.

Tex., Windom.—Texas Power & Light Co., F. R. Salter, Gen. Supt., Dallas, Tex., lately noted as purchasing electric light and power plant, states: "Windom is located on our transmission line, and will be fed from same through substation."

FERTILIZER FACTORIES

Ga., Midville.—Central Fertilizer Co. will rebuild burned plant.

FLOUR, FEED AND MEAL MILLS

Ala., Hurtsboro.—E. Renfroe and others will establish grist mill; ordered gasoline engine, grinding rocks, etc.

Ark., Barling.—Farmers' Milling & Feed Co., Fort Smith, Ark., R. R. No. 2 (lately noted incptd., capital $4000), organized; A. W. Geheb, Prest.; J. W. Riggs, V.-P.; J. E. Weindel, Secy. and Mgr.; W. B. Rugg, Treas.; will erect 24x20x37-ft. structure, with side building; construction by Mgr.; install machinery, cost $3000; daily capacity 25 lbs. flour; needs kerosene engine. (See Machinery Wanted.)

Okla., Blackwell.—Welge Grain Co., capital $15,000, incptd. by R. G. Welge, J. Grop and B. Easterday.

Okla., Tahlequah.—Tahlequah Mill & Elevator Co., capital stock $15,000, incptd. by J. W. McSpadden, Percy Wyley, R. H. Couch and others.

FOUNDRY AND MACHINE PLANTS

Ala., Anniston—Malleable Foundry.—Kilby Locomotive and Machine Works will build malleable foundry; needs equipment. (See Machinery Wanted.)

Ky., Owensboro — Machinery. — The Gunthier-Wright Machine Co. changed name to Wright Machine Co. and increased capital from $100,000 to $150,000.

Ky., Owensboro—Ditching and Road Machinery.—International Ditching & Road Machinery Co., capital $50,000, incptd. by W. R. Williams, C. A. Rogers and J. C. Bunch.

Okla., Enid — Thrashing Machines.—Hollingsworth Thrashing Machine Co., capital $6000, incptd. by W. A. Hollingsworth and J. B. Milton of Enid and Frank Chesley of Tulsa.

Okla., North Muskogee—Plows.—Oklahoma Motor Plow Co., capital $100,000, incptd. by J. R. Harris and B. F. Campbell of Fayetteville, Ark., and J. A. Lawrence, Tahlequah, Okla.

S. C., Chester—Machinery.—Wood Concentrator Co., capital stock $150,000, incptd. by J. H. Marion, J. B. Westbrook and F. Wolfe.

Tenn., Memphis—Machine Shop.—F. H. Heiskell will erect 2-story brick machine shop at 648 Marshall Ave.; 2 stories; brick and reinforced concrete; cost $10,000; Contr., J. C. Jones & Co.

W. Va., Wheeling — Molding Machines. — Automatic Molding Machine Co., capital $1000, incptd. by Fred Roderus, E. S. Bullard, Margaret McComb and others.

GAS AND OIL ENTERPRISES

Ark., Fort Smith.—Clear Creek Oil & Gas Co., capital $30,000, incptd.; J. F. McGehee, Prest.; C. E. Spear, V.-P.; R. S. Robertson, Secy.-Treas.

Ark., Little Rock — Pipe Line.—Arkansas Natural Gas Co. contemplates constructing 5-mi. auxiliary gaspipe line through Red River Bottoms; cost $50,000.

Ark., Magazine.—Basin Oil & Gas Co., capital $50,000, incptd. by Geo. A. Johnson, W. F. Rana, H. H. Darks and E. C. Roberts.

La., Edgerley.—Perry Oil Co., capital $15,000, incptd.; J. O. Mack, Prest.; E. W. Thompson and R. L. Collins, V.-Ps.; all of Beaumont, Tex.; L. Sless, Secy.-Treas., Vinton, La.

La., Shreveport.—Lenzburg-Crichton Oil & Gas Co., capital $100,000, incptd. with W. P. Hayne, V.-P., Boise, La.; W. W. Armstead, Secy., and A. T. Kahn, Treas., both of Shreveport.

Miss., Clarksdale—Gas Plant.—C. H. Pierce of Denver, Colo., is reported as contemplating establishment of gas plant.

Mo., St. Joseph.—St. Joseph Oil & Gasoline Co., capital $25,000, incptd. by E. H. Mohrbscher, Albert Hindery and H. A. Chapman.

Okla., Bristow—Oil Refinery.—Continental Refining Co. incptd., capital stock $7500, by A. A. T. Rolestone, Leon Thevenin and E. F. Gester.

Okla., Enid—Oil Refinery. — New Process Gas-Oil Refining Co., capital stock $50,000, incptd. by L. M. Chenoweth of Enid, Edwin M. Ireland of Oklahoma City, Jas. L. Hughey of Fairview, Okla., and others.

Okla., Pemeta, P. O. Jennings—Gas Plant. Truman Dunn, Mgr. of a gas company at Oilton (P. O. Jennings), will be in charge of constructing gas plant.

Okla., Tulsa.—LeFlore Oil & Gas Co. incorporated by J. E. Shaffer, E. A. Ross and H. N. Greis.

Tex., Austin.—Eimoda Oil & Development Co. increased capital stock from $35,000 to $150,000.

Tex., Austin.—Palm Valley Oil Co., capital stock $25,000, incptd. by W. H. Richardson, Jr., Charles Rogan and F. C. Hendrix.

Tex., Austin.—State House Oil & Gas Co., capital stock $50,000, incptd. by H. B. Terrell, Sam H. Carter and C. C. Quillin.

Tex., Austin. — Elberta Oil Co., capital stock $15,000, incptd. by C. C. Truitt, F. A. Scott and C. H. P. Showalter.

Tex., Austin.—Union Thrall Oil Co., capital stock $20,000, incptd. by E. Severin, H. J. Bauer and C. L. Crockett.

Tex., Caldwell.—Caldwell-Bartlett Oil Co., capital stock $12,000, incptd. by R. N. Sexton, W. J. Harlan and A. R. Grosse.

Tex., Dallas.—Lone Star Gas Co. is reported to duplicate gas mains from Petrolia fields to Dallas; cost about $500,000.

Tex., Elgin.—Coupland Independent Oil Co., capital stock $25,000, incptd. by J. O. Smith, E. Roy Jones and L. O. Keeble.

Tex., Elgin.—Bright Petroleum Co., capital stock $10,000, incptd. by G. W. Collier, J. H. Bright and W. L. Moore.

Tex., Elgin.—First Elgin Independent Oil Co., capital $25,000, incptd. by E. A. Jordan, J. O. Smith, A. M. Felts and others; leased 1000 acres oil land and let contract to drill well.

Tex., Georgetown.—Thrall Producers' Oil Co., capital stock $25,000, incptd. by F. D. Love, W. H. Davis and G. N. McDaniel.

Tex., Goree.—Resurrection Oil Co., capital stock $25,000, incptd. by W. F. Snody, Lee Coffman and L. A. Coffman.

Tex., Granger.—Granger Independent Oil & Gas Co., capital stock $15,000, incptd. by C. W. Russell, C. A. Jennings and C. A. Tidwell.

Tex., San Antonio.—Apex Oil & Gas Co., capital stock $26,000, incptd. by Ed Sand, H. T. Sand and M. H. Trice.

Tex., Taylor.—Neil Central Oil Co., capital stock $33,000, incptd. by H. B. Lee, H. J. Olrich and R. L. Mayers.

Tex., Tyler.—Black Land Oil Co., capital stock $30,000, incptd. by Howard Bland, J. P. Burns and R. H. Bland.

Tex., Thrall.—National Oil Co., capital stock $100,000, incptd by W. R. Davis, E. L. Steck and D. B. Spiller.

Tex., Thorndale.—Thrall Home Oil Co., capital stock $15,000, incptd. by I. Rudi, R. M. Barnes and O. B. Hoover.

Tex., Thorndale. — Real Derrick Oil Co., capital stock $16,000, incptd. by M. E. Fisher, D. Q. Squires and J. W. Byrum.

Tex., Weir.—Thrall-Weir Oil Co., capital stock $8000, incptd. by J. W. Hale, Carl Leise and J. L. Cruse.

Tex., Waco.—Brazos Oil & Gas Co., capital stock $4500, incptd. by W. H. Davenport, T. W. Simpson and C. C. Roberts.

ICE AND COLD-STORAGE PLANTS

Fla., Jacksonville.—Smith, Richardson & Conroy will remodel and enlarge cold-storage plant at Cedar and Bay Sts.; install additional refrigeration equipment; front of building, storage boxes and show cases of plate glass; cold-storage facilities, arranged in center of structure, to be of concrete and steel, 60x100 ft.; contract let; company is wholesale dealer in fresh meats and provisions.

Ga., Moultrie.—Moultrie Packing Co. will make previously-noted increase of storage capacity, from 300 to 1000 hogs per day, and from 50 to 100 head of cattle. (See Canning and Packing Plants.)

Ky., Tompkinsville.—J. R. White, L. W. Preston and Ed H. Smith of Glasgow, Ky., purchased ice and electric-light plant.

S. C., Bunnell.—Edward Mirandi will establish ice plant; daily capacity 2½ tons; purchased machinery; let construction contract to G. W. Brown.

Tenn., Jacksboro.—Tennessee Cola Bottling & Ice C., capital stock $20,000, incptd. by R. T. Miller, T. V. Boardman, R. L. Miller and others.

Tex., North Pleasanton, P. O. at Pleasanton.—L. B. Myers of El Reno, Okla., and others are reported interested in installation of ice factory and electric light and power plant to cost $40,000.

Tex., Rockwall.—Rockwall Ice Co., capital stock $6000, incptd. by F. H. Doran, H. B. Fisher and E. D. Force.

LAND DEVELOPMENTS

Ark., Hunter.—Prairie View Rice & Land Co. (lately noted incptd., capital $25,000) organized; W. P. Dawson, Prest.; G. C. Scudamon, V.-P.; W. E. Mathis, Secy.-Treas.; develop 420 acres, 2½ mi. from Hunter, for rice farming; contracts mainly let; needs engine and boiler. (See Machinery Wanted.)

D. C., Washington.—Washington Land Co., capital $50,000, incptd. by I. S. D. Sauls, C. K. Mount, both of Washington; J. H. Ralston of Hyattsville, Md.; W. F. H. Enos, Abbott Morris and Edward W. Wolcott, all of Norfolk, Va.

Fla., Miami.—Para Land Co., capital stock $1000, incptd.; J. H. Swink, Prest.; W. Frank Blanton, V.-P.; A. A. Brown, Secy.-Treas.

Fla., Tampa.—West Coast Co., capital stock $20,000, incptd.; Edward A. Rule, Prest.; Geo. E. Dale, V.-P.; Chas. H. Galliher, Secy.-Treas.

La., New Orleans.—Geo. A. Hero is reported to have purchased Cedar Grove and Concession plantations, former comprising 1120 arpents and latter 4649 arpents; planned to divide property into small farms and sell to settlers; expend $75,000 for improvements, to include road construction.

N. C., Belhaven. — Pantego Farms Co., Winston-Salem, N. C. (lately noted incptd., capital $125,000), will develop 1405 acres swamp lands about 7 mi. from Belhaven; will drain; E. D. Vaughn, Prest.; F. A. Fogle, Secy.-Treas. (See Drainage Systems.)

N. C., Charlotte.—Parks Land Co., capital stock $50,000, incptd. by D. P. Hutchison, Chas. F. Dalton, E. O. Anderson and E. C. Griffith; will develop 25 acres as residential section; will construct roads, etc.

N. C., Havelock.—S. E. Tilton of Delaware, O., is reported to have purchased 3900 acres land near Havelock and to develop for farming.

N. C., High Point.—Yadkin Development Co., capital stock $125,000, incptd. by Westcott Roberson of High Point, E. C. Deal and C. H. Andrews of Greensboro.

S. C., Charleston.—North Charleston Corp., People's Office Bldg., will expend $100,000 in improvements to residential section.

S. C., Ridgeville.—Woodrow Farms Co., capital stock $5000, incptd.; D. E. Thrower, Prest.-Treas.; R. Thrower, Secy.

Tex., Paris.—Lamar County Orchard Co., capital stock $5000, incptd. by C. F. Collins, J. N. Bailey and W. W. Wood.

Tex., Roby.—Town contemplates incorporation in near future; will probably then vote bonds to construct new city hall, a sewer system and street paving. Address Town Clerk.

Va., Petersburg.—Real Estate Development & Construction Corp., capital $50,000, incorporated; J. Walter Long (Secy. Real Estate Trust Co.), Prest., 1414 F St. N. W.; B. B. Wilson, V.-P.; B. R. Walters, Secy.-Treas., all of Washington, D. C.

W. Va., Charleston.—Shonk Land Co., capital $200,000, incptd. by Geo. E. Price, R. S. Spilman, E. C. Harrison and others.

W. Va., Huntington.—Huntington Investment Co. purchased 62 acres land on Ohio River front and will develop as suburb.

LUMBER MANUFACTURING

Ark., Mellwood.—Delta Logging Co., capital $3000, incptd. by J. V. and Robt. Stimson, A. M. Norton and others.

Ky., Bondurant.—A. D. Smith Lumber Co. of Paducah, Ky., purchased cypress timber on 2700 acres land at Bondurant; will install 2 mills.

La., Talisheek.—Ozone Lumber Co. will install drykiln and planing mill.

La., Zimmerman.—J. A. Bentley Lumber Co. will install 20x104-ft. drykiln ordered from National Drykiln Co. of Indianapolis, Ind.

Miss., Forest.—Bienville Lumber Co., Alberta, La., will establish lately-noted lumber plant; W. A. Davenport, Prest. and Mgr.; J. D. Allen, V.-P.; J. R. Mitchell, Secy.-Treas.; has let contract to W. R. Neislor to erect sawmill, planing mill, drykilns, sheds, etc.; machinery purchased; daily capacity 125,000 ft. yellow-pine lumber; needs cement and brick. (See Machinery Wanted.)

Mo., West Plains.—Swanson Lumber Co., capital stock $6000, incptd. by C. C. Swanson, K. S. Swanson and M. E. Morrow.

N. C., Marion.—Beaman Lumber Co. will rebuild lumber plant previously reported burned at estimated loss of $40,000.

N. C., Mt. Airy.—Sidney Bieber, 405 Riggs Bldg., Washington, D. C., and Washington and New York capitalists purchased 12,000 acres Blue Ridge Mountain hardwood timber land in Southwest Virginia and North Carolina; reported price $500,000; will organize Mayo-Dan Lumber Corp., with offices at Washington; develop timber, build mills, construct Mt. Airy & Eastern R. R. from Mt. Airy to Kibble, Va.

N. C., Pollocksville.—Trent River Lumber

PROPOSAL ADVERTISEMENTS
IN THIS ISSUE
PUBLISHED ON PAGES 70 and 71

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Co., capital $25,000, incptd. by J. H. Simmons, C. A. McDaniel and others.

Tenn., Elizabethton.—Boone Fork Lumber Co., capital stock $50,000, organized; W. S. Whiting, Prest.; C. K. Heywood, Treas.; both of American National Bank Bldg., Asheville, N. C.; purchased timber land at about $250,000; will build mills for monthly capacity 1,000,000 ft. lumber; equipment to cost $25,000; has not decided on character of construction, etc. (Boone Fork Company lately reported, under Asheville, N. C., as chartered; Whiting Lumber Co., Philadelphia and Asheville, lately reported as buying timber land, etc., but the purchase and the mill is the enterprise of Mr. Whiting in the Boone Fork company.)

Tex., Blocker.—Waterman Lumber Co. will install 3 drykilns, each 20x104 ft.; let contract National Drykiln Co. of Indianapolis, Ind. (Lately noted.)

Tex., Pineland.—Temple Lumber Co. will install 20x120-ft. kiln; let contract National Drykiln Co. of Indianapolis, Ind.

Tex., Victoria.—Good Land Lumber Co., capital stock $10,000, incptd. by John J. Kuntz, Roy S. Hollingsworth and E. W. Newton.

METAL-WORKING PLANTS

Mo., St. Joseph—Tanks.—Missouri & Kansas Steel Tank Mfg. Co., capital $16,000, incorporated by E. F. Yale, J. H. Downs and F. A. Thompson.

Tex., Dallas — Steel Wire Springs, etc. — Lyle Marshall and H. R. White of Nashville, Tenn., will build plant to manufacture steel wire springs, steel spring cots and davenports, etc.; estimated cost $25,000.

Va., Norfolk—Shutters and Screens.—Disappearing Metal Shutter & Screen Corp., capital $25,000, chartered; J. Frank East, Prest.; Wm. Hannan, Jr., Secy.

MINING

Ark., Clifty—Potash.—Dan Coleman, care R. E. L. Graham, contemplates development of commercial potash on Mr. Graham's land.

Ga., Junction City — Sand. — J. R. Hime Sand Co., Box 827, Atlanta, Ga., Mrs. J. R. Hime, Macon, Ga., Prest., and O. A. Nix, Secy.-Treas. and Mgr., will install lately-noted sand plant; acreage 460; present output 5 cars; capacity 15 cars; wants data and prices on plant installed. (See Machinery Wanted.)

La., Jennings—Gravel.—Louisiana Gravel Co., capital stock $50,000, incptd.; Geo. Hathaway, Prest.; J. P. Black, V.-P.; R. E. Erwin, Secy.; H. L. Davis, Treas.

Mo., Joplin—Lead and Zinc.—S. Y. Ramage Mining Co. will sink original shaft deep and sink new shaft.

Mo., Joplin—Lead and Zinc.—Scott Mining Co., capital stock $80,000, incptd. by Haywood Scott, Nina Wise Scott and C. Schuette.

N. C., Entermont, P. O. at Toecane—China Clay.—Entermont China Clay Co. organized with $25,000 capital stock; develop china clay deposits, daily output 12 to 15 tons; to increase to 25 tons; will build mill; is constructing 3-mi. flume to clay deposit on mountain; has let contract to Patterson Foundry & Machine Co., East Liverpool, O., for drying and pressing machinery with daily capacity 40 tons clay.

Okla., Commerce—Zinc.—Century Zinc Co. will build 300-ton concentrating plant on Tar Creek lease.

Tenn., Erwin — Zinc. — W. J. Toney and others purchased option on property said to contain large zinc deposits; contemplate development.

Tenn., Kingsport—Slate.—Edward G. Sloeman of Bangor, Pa., will develop slate deposits.

MISCELLANEOUS CONSTRUCTION

Fla., Jacksonville—Wharf Sheds. — Board Port Commrs., F. W. Bruce, Ch. Engr., 314 Realty Bldg., asks bids until June 10 for erection of steel wharf sheds on municipal piers; plans and information obtainable from engineer.

Fla., West Palm Beach—Seawall.—City let contract Jonas & Garretson at $69,691 to build seawall, construct sanitary sewers and pave streets; seawall will require 1350 cu. yds. reinforced concrete, 73.44 tons steel reinforcement, 11,460 lbs. anchor rods, bolts, nuts and washers, etc.; Engr., J. B. McCrary Co., Third National Bank Bldg., Atlanta, Ga.; A. M. Lopez, Clerk. (Call for bids lately noted.)

Miss., Meridian—Subway.—City plans to construct subway on 26th Ave. Address The Mayor.

S. C., Columbia—Heating Plant.—University of South Carolina will extend central heating plant; bids until May 18; plans by Wilson & Sompayrac, Palmetto Bldg., Columbia; August Kohn, Chrmn. Building Committee; lately noted. (See Machinery Wanted.)

MISCELLANEOUS ENTERPRISES

Ala., Birmingham — Printing. — Franklin Printing Co., capital stock $2400, incptd.; John L. Davis, Prest.-Mgr.; N. R. Thompson, V.-P.; Luther George, Secy.-Treas.

Ark., Hot Springs—Water Bottling.—Crystal Lithox Water Co., capital stock $50,000, incptd.; M. C. Tombler, Prest.; John G. Higgins, V.-P.; Jas. Leonard, Secy.-Treas.

Fla., Miami — Fishery. — Miami Fish Co., capital stock $50,000, incptd.; J. G. Crossland, Prest. and Gen. Mgr.; C. H. Frow, V.-P.; P. A. Dampier, Secy.-Treas.

Ky., Maysville—Laundry.—Model Laundry Co. let contract Jeff Easton to erect 3-story brick building for laundry.

Ky., Owensboro — Publishing. — The News Publishing Co., capital $5000, incptd. by Claud E. Abshier, Frank B. Posey, Fred A. Heuring.

Ky., Williamsburg—Hardware. — Williamsburg Hardware Co., capital $10,000, incptd. by F. G. Burnett, J. R. Justice, G. W. Patrick, A. Gatliff and J. M. Ellison.

Mo., Jasper—Grain Elevator.—Farmers' Cooperative Elevator Co., capital $15,000, incptd. by W. H. Hille, F. W. Westcott and J. E. Hille.

Mo., Kansas City — Industrial Building. — Otto H. Hesse, Leavenworth, Kans., will erect $18,000 building at 17th and Oak Sts. for light manufacturing; 83x105 ft.; 2 stories, with design for 4 stories; steel girders and columns, balance mill construction; tar and gravel or composition roofing; wood floors; steam heat, cost $2000; electric wiring and lighting (to suit tenant); freight elevator, 10 tons capacity; Raney & Dumas, Archts., 216 Rialto Bldg., Kansas City; construction by day labor; excavation commenced; bids wanted on windows, glazing, roofing, flooring and boilers. (See Machinery Wanted.)

Mo., Kansas City—Water.—National Pure Water Co., capital $4500, incptd. by M. D. Avery, J. H. Gilmore and L. W. Jeffords.

N. C., Hendersonville—Electrical Contracting, etc.—McIntyre & Stacy (J. W. McIntyre and Chas. A. Stacy) are establishing electrical contracting and supply business. (See Machinery Wanted.)

N. C., Hickory — Hardware.—Co-operative Hardware Co., capital $25,000, incptd. by J. C. Huffman, C. N. Honeycutt and others.

S. C., Coronaca—Stone Crushing.—T. T. Todd will install stone-crushing machine.

Tenn., Memphis — Laundry. — Bluff City Laundry, capital stock $25,000, incptd. by Mrs. C. M. Ashford, E. B. Horn, J. J. Childress and others.

Tenn., Nashville — Publishing. — Nashville Publicity Co., capital stock $100,000, incptd. by Sam Hartman, Ike Hartman, Perkins Baxter and others.

Tex., Austin—Fire-alarm System.—City, A. P. Wooldridge, Mayor, will vote June 9 on lately-note $25,000 bonds for automatic fire and police alarm system. (See Road and Street Work.)

Tex., Burkburnett—Grain Elevator.—Wichita Mills & Elevator Co. will build grain elevator; probably of concrete.

Tex., Houston—Printing.—Glooe Printing Co., capital stock $10,000, incptd. by Sam C. Judd, E. Milroy and B. V. McKnight.

Tex., Megargel—Grain Elevator.—Graham Mill & Elevator Co. of Graham, Tex., let contract to build 8000-bus. grain elevator.

Tex., Newcastle—Grain Elevator.—Cosburn & Terrell have plans by Evan Jones of Wichita Falls for grain elevator; capacity 8000 bus.

Va., Norfolk—Marine Ways.—W. H. Hannock leased site on which to build 2 marine ways, 1 for light draft gasoline driven craft and other small boats; other to have capacity of about 150 tons; plans to organize company with about $10,000 capital stock; B. B. Botts to be in charge of construction and operation.

Va., Richmond—Publishing.—Appeals Press, capital $15,000, incptd.; M. B. Watts, Prest.; J. J. Lewis, Secy.

W. Va., Wheeling—Limestone Crusher.—West Virginia Limestone Co. will reorganize with $50,000 capital stock; plans to install crushing equipment and build 3 lime-burning kilns; also proposes to crush and pulverize sandstone for building purposes and utilize shales and clays to manufacture bricks and bituminous paving blocks.

MISCELLANEOUS FACTORIES

Ala., Montgomery—Ink.—Davis Non-Erasable Ink Co., capital $25,000, incptd.; A. E. Davis, Prest., and A. J. Naftel, V.-P., both of Naftel, Ala.; J. D. Evans, Secy., and R. W. Vass, Treas., both of Montgomery.

Ark., Benton—Medicine. — Sas-Nak-Ra Co., capital $10,000, incptd. by E. A. Parker, W. M. Steed, L. B. White and others.

Fla., Jacksonville—Cigars. — Florida Cigar Mfg. Co. of Key West, Fla., leased second and third floors of building at Main and State Sts.; will equip as cigar factory.

Fla., Jacksonville—Syrup Refinery. — Alabama-Georgia Syrup Co., Montgomery, Ala., will build lately-noted cane syrup refinery; style of buildings not decided; cost $30,000.

Fla., Sanford—Boat Building.—S. Sherman is reported to erect boat-building plant and provide harbor facilities.

Fla., Jacksonville—Bottling.—Florida Coca-Cola Bottling Co., capital stock $250,000, incptd.; T. C. Parker, Prest.; T. C. Parker, Jr., V.-P.; H. E. Barnett, Secy.-Treas.

Ga., Tifton—Brooms.—J. A. Eason, H. H. Tift and others are reported to install broom factory.

Ky., Louisville—Tabs.—Bran-O-Tab Company, Louisville, capital $30,000, incptd.; H. H. Crittenden, R. K. Walker and E. C. Knoop.

Ky., Louisville — Buttons, etc. — Wilson-Roche Mfg. Co., capital stock $15,000, incptd. by John E. Douglas, S. Roche and Geo. H. Wilson.

Md., Baltimore—Specialty.—Joe Fisher Specialty Co. is having plans prepared by Geo. R. Callis, Jr., 55 Knickerbocker Bldg., Baltimore, for factory at 14-16 S. High St.; 39.7x111 ft.; brick and steel; slag roof; wood floor; steam heat; cost about $20,000; plans ready about June 1.

Md., Baltimore — Credit Registers. — National Credit Register Co. will be organized to establish plant for manufacturing credit registers; address company's financial representative, Corporation Fiduciary Co., Munsey Bldg.

Md., Baltimore — Ships. — Baltimore Drydocks & Shipbuilding Co., capital stock $1,100,000, incptd. to succeed Skinner Shipbuilding & Drydock Co., in accordance with reorganization plan lately noted; contemplates having additional capital available for improvements; details to be determined later; Holden A. Evans, V.-P. and Gen. Mgr.

Md., Baltimore — Calcium Carbide and Ferro-Silicon. — Shawinigan Electro Products Co., capitalization $250,000, organized with Chas. E. F. Clark, Prest.; J. A. Walls, V.-P. and Ch. Engr.; J. L. Rintoul, Secy.-Treas.; these officers are also, respectively, Prest., Gen. Engr. and Asst. Treas. of Pennsylvania Water & Power Co.; will build plant, adjoining Highlandtown substation of Pennsylvania Water & Power Co., to manufacture calcium carbide and ferro-silicon; annual capacity 10,000 to 20,000 tons; install electric furnaces; use large quantity electric power from transmission system of Consolidated Gas, Electric Light & Power Co., Liberty and Lexington Sts.; latter company's electricity largely generated at Pennsylvania Water & Power Co.'s hydro-electric development at McCall's Ferry, Pa., on Susquehanna River. (Lately noted.)

Miss., Yazoo City—Automobile Device.—Orr Modern Motor Car Co., capital stock $2,000,000, incptd. by Harry Priestly and J. W. Hinchliff of Vicksburg, Miss.; Joe Weinburg of Greenville, Miss.; Wm. Shields of Durant, Miss.; F. J. Flournoy of Canton, Miss., and others to manufacture speeding device for automobiles patented by C. D. Orr of Yazoo City.

Mo., Edina — Soap, etc. — Edgar W. Kirk Soap & Cleanser Co. will establish lately-noted plant; Edgar W. Kirk, Prest.; Stanley M. Foster, V.-P.; J. C. Lanner, Secy.; Chas. B. Linville, Treas.; F. W. Crabbe, Mgr.; let contract May 12 to erect $15,000 brick building; 3 stories with basement; 158x50 ft.; hardwood floors; plans by Arthur L. Sparks, Railway Exchange Bldg., Chicago; now receiving bids on machinery, cost $15,000 to $20,000; daily capacity plant 3 to 5 cars soap and cleansers. (See Machinery Wanted.)

Mo., Kansas City—Tires.—Firestone Tire Co. of Akron, O., will build plant.

Mo., Kansas City—Laboratories.—Scientific Laboratories Co., capital stock $2000, incptd. by L. Anton Smith, C. H. Alexander and A. C. Alexander.

Mo., St. Louis—Underwear, etc. — Lowenbaum Mfg. Co., 1813-1815 Olive St., leased half of first floor area, 50x155 ft., and entire second and third floors, each 100x155 ft., of Elias Haas Bldg. at 23d and Locust Sts.; will equip to manufacture muslin underwear, house dresses, etc.

Mo., St. Louis—Fire Apparatus.—Robinson Fire Apparatus Mfg. Co. increased capital stock from $225,000 to $325,000.

Mo., St. Louis—Caps.—Independent Cap Co., capital stock $3000, incptd. by Dallas Hamilton, H. and F. Schnurman.

N. C., Ahoskie—Baskets.—J. M. Odom will erect basket factory.

N. C., Linville Falls—Lime.—J. W. Grimes is reported to build plant with daily capacity 100 tons lime.

N. C., Newbern—Bakery.—Alfred A. Kafer, 134 Middle St., is constructing $18,000 bakery building; fireproof; 45x110 ft.; slag roof; steam heat; electric lighting; elevator.

Okla., Muskogee—Gloves.—American Glove & Knitting Co. is reported to install 10 additional machines.

S. C., Anderson—Horse Collars.—T. Q. Anderson Bagging & Tie Co. has purchased materials and will erect by contract horse-collar factory lately noted to be rebuilt; factory building 50x120 ft.; warehouse 70x150 ft.; mill construction; will install 2 garnetts and pad-factory machinery, including pickers.

S. C., Chester—Bakery.—Catawba Steam Bakery, capital stock $4000, incptd. by C. J. Walker and T. L. Eberhart.

S. C., Cheraw.—Cheraw Mfg. Co., capital $5000, incptd. by J. W. Brasington, T. B. Huntley and T. M. Knight.

Tenn., Chattanooga—Distillery.—Four Oaks Distilling Co., capital stock $1000, incptd. by W. A. Wolf, E. A. Johnson, Henry Steiner and others.

Tenn., Jacksboro — Bottling. — Tennessee Cola Bottling & Ice Co., capital stock $20,000, incptd. by R. T. Miller, T. V. Boardman, R. L. Miller and others.

Tex., Port Arthur—Coaster.—Port Arthur Coaster Co., capital stock $10,000, incptd. by H. L. Watkins, C. C. Hall and J. E. Alexander.

Tex., McAllen—Creamery.—McAllen Creamery Co. increased capital stock from $4600 to $6800.

Tex., Sherman—Bakery.—Sunshine Bakery, capital stock $25,000, incptd. by G. B. R. Smith, J. Paul Smith and Emma Riddle.

Va., Lynchburg—Bottling.—Lynchburg Pepsi-Cola Bottling Co., capital $10,000, incptd.; H. C. Joyner, Prest.; W. G. Mitchell, Secy.-Treas.

Va., Richmond—Railway Signals.—Hudson Railway Signal Co., capital $500,000, incptd.; W. J. McAughey, Prest.; R. F. Hudson, Secy.

Va., Roanoke—Candy.—W. G. Baldwin & Co., capital $300,000, incptd.; W. G. Baldwin, Prest.; Waller R. Staples, V.-P.; E. G. Baldwin, Secy.

Va., Winchester—Vinegar.—National Fruit Product Co., Alexandria, Va., will build plant to manufacture apple cider vinegar.

W. Va., Charleston — Violins. — American Violin Co., 94 Charleston St., has not yet perfected building plans; is having special cutting machinery made; will commence operation in temporary quarters about Sept. 1; N. P. Perkins, Prest. and Mgr.; A. C. Calderwood, V.-P.; W. A. Cantrell, Secy.-Treas. (In January noted incptd. and to build plant for manufacture of violins.)

MOTORS AND GARAGES

Ala., Attalla—Garage.—E. B. Johnson and others are reported to build garage.

Fla., Lakeland—Automobile Line.—South Florida Bus Co., capital stock $10,000; incptd.; Frank McKay, Prest.-Treas.; L. Kirk McKay, V.-P.; A. C. McKay, Secy. and Gen. Mgr.

Ky., Carlisle—Garage.—Robt. Harper will erect garage; fireproof; brick.

Ky., Louisville — Automobiles. — Medanich Motors Co., capital $125,000, incptd. by Daniel B. Medanich, John R. Wright and Oliver H. Kelsall.

Md., Baltimore.—E. W. Eisenhauer, Blueridge Summit, Pa., will erect garage on North Ave. near Charles St.

Miss., Clarksdale—Garage.—King & Anderson let contract Crawford-Williamson Construction Co., Builders' Exchange, Memphis, Tenn., to build garage; 1 story; brick and concrete; cost $5000, exclusive of mechanical equipment; Chas. O. Pfeil, Memphis, Tenn., prepared plans and specifications.

Mo., Kansas City—Automobile Parts.—Kansas City Auto Parts Co., capital $300,000, incptd. by Gustave V. Nelson, Otto H. Nelson and Carl E. Kimpton.

Mo., Springfield—Automobiles. — Overland Motor Co., capital $10,000, incptd. by Harry W., John L. and David M. Diffenderffer.

Mo., St. Louis—Garage.—Mogul Truck Co., 6100 Maple Ave., purchased site 125x187 ft., on which to build garage to contain machine shop, showroom, offices, etc.

Okla., Oklahoma City—Automobiles.—H. M. Sharp Motor Car Co., capital stock $25,000, incptd. by H. M. Sharp, A. R. Morrison, H. A. Kroeger and John W. Roe.

Tex., Roby—Garage.—Dr. J. R. Barlow contemplates erecting garage on S. 1st St.; corrugated-iron 50x150-ft. structure.

Va., Staunton—Automobiles.—Baines Automobile Corp., capital $10,000, chartered; K. H. Knorr, Prest.; T. C. Baines, Secy.

W. Va., Morgantown—Automobile Supplies and Repairs.—Auto Supply & Repair Co., capital $5000, incptd. by John L. Dougan, Wm. L. Morris, G. B. Miller and others.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ala., Mobile.—Orange Belt Terminal Co., capital stock $2500, incptd.; L. C. Irvine, Prest.; L. W. Savage, Treas.

Tex., Galveston.—Gulf, Colorado & Santa Fe Ry., F. Merritt, Ch. Engr., decided during April upon improvements costing about $267,688.78, to include $55,104.18 for bridges, trestles and culverts, $26,024.12 for stations and office buildings, and $10,249.23 for shop machinery.

ROAD AND STREET WORK

Ala., Camden.—Wilcox county will grade and gravel part of Selma and Mobile Rd., beginning near Dallas county line; County Commrs. receive bids until June 7; W. S. Keller, State Highway Engr., Montgomery. (See Machinery Wanted.)

Ala., Russellville. — Franklin County Commrs. let contract Newell Bros., Birmingham, at about $50,000 to construct portion of old Fulton Rd. from Russellville to Red Bay; about 18 mi.; road to be graded and drained and part graveled. (Lately noted.)

Ark., Conway.—City will construct about 8000 yds. concrete paving in Street Improvement Dist. No. 3; Frank E. Robbins, Secy. Board of Improvement, receives bids until May 21; Engr., B. G. Wilson, Conway. (See Machinery Wanted.)

Ark., Hot Springs.—United States Dept. of Agriculture, Forest Service, Arkansas National Forest, R. C. Huey, Acting Forest Supvr., has estimates for constructing about 200 mi. roads and trails on Arkansas forest in Perry, Saline, Garland, Montgomery, Polk, Scott and Yell counties; needs small air drill outfit on trucks or a tractor. (See Machinery Wanted.)

Fla., Fort Meade.—City, J. J. Singleton, Secy., Bond Trustees, will issue $58,000 bonds for street paving, etc. (See Electric Plants.)

Fla., Fort Myers.—Lee county voted $177,500 to hard surface 42 mi. road; H. A. Hendry, Clerk Board Commrs. (Road previously noted to include 36¼ mi. hard road from Fort Myers to Naples, and 16½ mi. graded road, in continuation, from Naples to Marco.)

Fla., Miami. — City will grade and pave with Miami rock, construct combined curb and gutter, install standard inlets and furnish and apply liquid asphalt to surface of sections of 10th, 22d and Bay Sts., distance of grading and paving being, respectively, 1214, 692 and 1304 ft.; grade and pave with Miami rock sections of 26th St. and Ave. P, distance 800 and 2450 ft., respectively; also grade and pave with Miami rock and furnish and apply asphalt macadam to surface, construct concrete curb and gutter, etc., on section of Ave. G and 12th St., distance being 3850 ft. and 2050 ft., respectively; W. B. Moore, City Clerk, receives bids until May 20. (See Machinery Wanted.)

Fla., Tallahassee.—City voted $34,000 bonds to pave streets. Address The Mayor.

Fla., West Palm Beach.—City let contract Jonas & Garretson at $69,691 to pave streets, construct sanitary sewers and build seawall; street improvements include 40,000 sq. yds. macadam pavement, 29,900 sq. yds. rock surfacing and 5544 cu. yds. grading; Engr., J. B. McCrary Co., 1408 Third National Bank Bldg., Atlanta, Ga.; A. M. Lopez, Clerk. (Call for bids lately noted.)

Fla., Winter Haven.—City will not vote on bonds for road construction. (Recent report incorrect.)

Fla., Winter Park.—City, Percy Dale, Clerk, has $20,000 available for paving; date of opening bids not set. (Lately noted.)

Ga., Atlanta.—City will pave Alabama St. from Broad to Central Ave. with granite cubes; R. M. Clayton, Ch. of Construction.

Ga., Macon.—City, D. S. Jones, Clerk, will pave certain streets; materials include vitrified brick, wire lug cut brick, plain concrete, concrete covered with tarvia, creosoted wood block, asphalt block, sheet asphalt, asphalted concrete, bitulithic pavement, tarvia concrete, fiber asphalt, bituminous macadam and granite block; bids until June 1. (See Machinery Wanted.)

Ky., Bowling Green.—Warren county will reconstruct 20 or more mi. contemplated "Dixie Highway," extending north 10 mi. toward Mammoth Cave, and south 10 mi. toward Nashville; cost about $800 per mi.; bids asked within few days; M. H. Crump, County Road Engr.

Ky., Louisville.—City let contract L. R. Figg Co. of Louisville at $17,800 to pave alleys with vitrified brick.

Ky., Louisville.—City will pave Frank Ave. from Frankfort Ave. about 4 blocks south with asphalt; Board of Public Works invites bids until May 27; estimated cost $13,000.

Ky., Richmond.—City will pave Main St. with brick. Address The Mayor.

Ky., Stanford. — City will construct concrete sidewalks. Address The Mayor.

La., Alexandria.—Rapides parish, Ward 1, let contract to Wetzel & Co., Rossier, La., for construction 28 mi. gravel roads to cost $83,000; $100,000 available; I. W. Sylvester, Engr., Alexandria, La.; Sol. Weil, City Secy.-Treas. (Bids lately noted.)

La., New Orleans.—H. H. Shackelford Co., Bayou Sara, La., has contract at $14,664.20 to construct earth road 50 ft. wide; 54,000 cu. yds. grading.

Md., Baltimore.—City let contract Thos. F. Mullan, 4001 York Rd., at $5865 to build road at sewage-disposal works, Back River. (See Sewer Construction.)

Md., Baltimore.—City let contract Patrick Flanigan & Sons, 120 E. Lexington St., at $42,183.20 to pave Haubert, Hull, Beason, Covington and Cross Sts., Locust Point, with sheet asphalt; contract No. 114. (Call for bids lately noted.)

Md., Frederick.—Frederick County Commissioners, John W. Holton, Prest., let contract J. M. Mount of Damascus, R. F. D. from Germantown, Md., at $12,085 to construct State-aid road from Monrovia to Hyattstown, 1½ mi. (Call for bids lately noted.)

Md., Towson.—Baltimore County Commrs. will improve 2½ mi. Lower Beckleysville Rd. in Fifth Dist. from Falls Rd. to Carroll county line at Hampstead; county will pay $5500 of cost and property owners $1500; County Commrs. also agreed to contribute $3000 toward improvement of Beaumont Ave. from York Rd. to Kenilworth Park at Govans.

Miss., Canton.—Madison County Supvrs. Dist. No. 1 will construct roads; plans, by Xavier A. Kramer, Engr., Magnolia, Miss., ready June 7; bids for first week in July; A. P. Cameron, M. S. Hill and Flourney, Commrs. (See Machinery Wanted.)

Miss., Meridian.—Lauderdale county, Dist. No. 1, contract was awarded by Good Roads Com. to Uniform Asphalt Distributor Co., Meridian; work includes resurfacing several roads with asphalt; W. P. Moore, County Engr. (Lately noted.)

Miss., Vicksburg.—City will construct sidewalks on sections of Monroe, Jackson and other streets; bids until June 7; J. J. Hayes, Mayor. (See Machinery Wanted.)

Miss., Shannon.—City, J. H. Smith, Mayor (lately noted to vote June 1 on $1800 bonds), will grade and gravel streets; about 5700 yds. dirt work and 400 yds. gravel; C. G. Smith, Engr., Tupelo, Miss.

Mo., Weston.—City, Terrence Riley, Clerk, will open bids about June 1 to construct macadam paving with bituminous binder on Washington St.; cost about $12,000; also same kind of paving, cost about $5000, on Main St.; Chas. E. McCrae, Engr., 217 Reliance Bldg., Kansas City, Mo. (See Machinery Wanted.)

N. C., Bryson City.—Swain County Highway Commrs. let contract Phillips Munday to construct 8 mi. roads; $100,000 available; T. M. Howerton, Engr. (Bids lately noted.)

N. C., Carthage.—Moore county, Sandhills township, votes June 15 on $5000 bonds to construct roads. Address County Commrs.

N. C., Dobson.—Surry county, Elkin township, voted $35,000 bonds to construct roads. Address County Commrs. (Lately noted.)

N. C., Hamlet.—City contemplates improving streets and sidewalks. Address The Mayor

N. C., Hertford.—City, W. E. White, Mayor, will issue $8000 bonds for street paving. Address W. C. Winslow, Clerk.

N. C., Henderson.—Vance county voted $50,000 bonds to construct roads. Address County Commrs. (Lately noted.)

N. C., Roxboro.—Person county, Roxboro township, voted $75,000 bonds to construct roads; W. E. Webb, Clerk. (Lately noted.)

N. C., Southport. — Brunswick county, Smithville township, will construct about 16 mi. sand-clay road; Road Commrs., C. Lennon, Chrmn., receive bids until May 24; Engr., W. H. Banck, Wilmington. (See Machinery Wanted.)

Okla., Madill. — Marshall county, O'Dell Township, votes June 9 on $138,000 bonds to construct roads. Address County Commrs.

S. C., Anderson.—City let contract Southern Paving Construction Co., Chattanooga, Tenn., at about $54,600 to lay 28,000 sq. yds. vitrified brick paving and at about $91,590 to lay 64,500 sq. yds. sheet asphalt paving; total cost about $146,000; W. A. Sanders, City Engr. (Lately noted.)

S. C., Greenville.—City let contracts for 70,000 sq. yds. street paving, 20,000 sq. yds. sidewalk paving, 25,000 lin. ft. granite curbing, 10,000 lin. ft. combination cement curb and gutter, etc., as follows: West Construction Co. of Chattanooga, Tenn., for asphalt street paving; Slattery & Henry of Greenville for brick and concrete paving; Greenville Tile Co. for sidewalks; total $29,750; C. P. Ballenger, City Engr.; John B. Marshall, Mayor. (Call for bids lately noted.)

Tenn., Benton.—Polk county will improve and build additional roads; $40,000 available. Address County Commrs.

Tenn., Chattanooga. — Hamilton county will construct cement, concrete or bituminous concrete pavement, with concrete curb and gutter, on McCallie Ave. from odds Ave. and extending to west portal of Missionary Ridge tunnel; bids until May 31; H. B. Bryan, County Engr.; Will Cummings, County Judge. (See Machinery Wanted.)

Tenn., Chattanooga. — Lookout Mountain Pike Com., H. F. Lawrence, Chrmn., will construct concrete pike 2.13 mi. long, together with culverts, walls, etc., beginning at St. Elmo Ave. and crossing Lookout Mountain to bridge across Lookout Creek; bids until May 31. (See Machinery Wanted.)

Tenn., Columbia.—City, J. M. Dedman, Mayor, will construct about 8800 sq. yds. asphalt-concrete on macadam base, 14,200 yds. asphalt-macadam mixed method on macadam base, and 3800 ft. combined curb and gutter; bids until May 25; E. E. Erwin, Recorder. (See Machinery Wanted.)

Tenn., Newport.—Cocke county voted $200,000 bonds to construct roads; date of opening bids not set; engineer not selected; Geo. W. Gorrell, Chrmn. Pike Com. (Lately noted.)

Tenn., Waverly. — Humphreys county will construct 225 mi. road; surveying, grading, metaling, etc.; $225,000 available; date of opening bids not set; engineer not employed; Jas. T. Anderson, Chrmn. Highway Commrs. (Bonds lately noted voted.)

Tex., Angleton. — Brazoria County Road Dist. No. 6 let contract W. D. Haden & Co. of Galveston at about $100,000 to construct 30 mi. shell and gravel road, including grading and bridging; issued $150,000 bonds; J. H. Dawson, Engr., Alvin, Tex. (Call for bids lately noted.)

Tex., Austin. — City, A. P. Wooldridge, Mayor, will vote June 9 on previously-noted bonds; amount $750,000; $425,000 for street improvements; $250,000 for school buildings; $50,000 for sanitary sewers; $25,000 for automatic fire and police-alarm system.

Tex., Cuero.—De Witt county, Road Dist. No. 4, will vote on $57,000 bonds to construct roads radiating from Cuero, totalling 28 mi. Address County Commrs.

Tex., Marshall.—Harrison county will construct about 25 mi. graveled and macadam highway in Road Dist. No. 1; Commrs.' Court receives bids until May 24; N. P. Turner, Highway Engr., Marshall. (See Machinery Wanted.)

Tex., Sherman. — Grayson county, Road Dist. No. 4, votes June 19 on $60,000 bonds to gravel roads. Address County Commrs.

Tex., Timpson.—City voted $10,000 bonds to construct cement sidewalks; engaged engineer. Address The Mayor.

Tex., Uvalde.—City will pave about 6000 sq. yds. street with waterproof pavement, including 1300 lin. ft. concrete curbing; bids until May 27. Address City Engr. (See Machinery Wanted.)

Tex., Wichita Falls.—City will construct about 2 mi. concrete pavement; I. H. Roberts, Contr.; L. C. Hinckley, Engr. (Lately noted.)

Va., Boydton.—Mecklenburg county will construct 40 mi. road; $30,000 bonds previously noted voted; construction by convict labor, under supervision of R. L. Thomason, Skipwith, Va., and G. P. Coleman, State Highway Commr., Richmond, Va.

Va., Houston.—Halfax county, Red Bank Magisterial Dist., voted $50,000 road bonds. Address County Commrs.

Va., Independence.—Grayson County Commissioners let contract Harman & Albert of Shawsville, Va., at about $7500 to construct 4 mi. graded road from Independence eastward.

Va., Petersburg.—City let contract Central Construction & Supply Co. to construct 3000 yds. asphaltic concrete paving; R. D. Budd, City Engr.; $3500 available. (Bids lately noted.)

Va., Richmond.—Henrico County Commrs. let following contracts for road construction: T. W. Martson, Roxbury, Va., for 3.5 mi. gravel road; Betts & Boice, Chestertown, Md., for 7.3 mi. gravel road; Lewis Lawson, Norfolk, for 1.61 mi. bituminous macadam; Colvin & Gelson, Culpeper, for 1.69 mi. macadam on Osborne turnpike; L. R. Colbert, Massaponax, for 4 mi. macadam road.

W. Va., Dunbar. — Dunbar Land Co. will build about 3 mi. concrete sidewalk; 4 ft. wide, 6-in. crushed stone on graveled base, 4-in. concrete and 1-in. surface; C. E. Walker, company's Engr.; construction under company's Mgr., J. A. Bolden. (Previously noted.)

W. Va., Marlinton. — Pocahontas county will construct road from Spice Run to old Droop Mountain Rd. on location surveyed by E. H. Williams, County Surveyor; S. L. Brown Clerk County Court, receives bids until May 25. (See Machinery Wanted.)

W. Va., Stealey Heights, P. O. at Clarksburg.—City voted $30,000 bonds to pave streets; M. B. Newlon, Town Recorder. (Lately noted.)

W. Va., Wayne.—Wayne County Commrs. let contract Brubaker Construction Co. at $53,400 to construct paved road between Cabell county line and Twelve Pole; length 3 mi. and 50 ft.; width 16 ft.; brick on concrete base.

SEWER CONSTRUCTION

Ala., Slocomb.—Slocomb Sanitary Sewer Co., J. E. Cox, Prest. (lately noted organized to construct sewer system) let engineering and construction contract to W. Hopson Goodloe, American National Bank Bldg., Macon, Ga.

Ark., Ashdown.—City let general contract to C. W. Cardwell of Texarkana, Ark., at $29,209.95 to construct sewer system; contractor to furnish material; Engrs., Winters & Dove, Fort Smith, Ark. (Call for bids and further facts lately noted.)

Ark., Benton.—City, R. C. Bailey, Mayor, will construct lately-noted sewers; cost of sewers and water-works $100,000; open bids in about 30 days; J. B. McCrary Co., Atlanta, Ga. (previously noted as Engr.), probable Contr. (See Water-works.)

Ark., Walnut Ridge.—City is considering construction of sewer system and water-works. Address The Mayor.

Fla., Fort Meade.—City, J. J. Singleton, Secy. Bond Trustees, will issue $58,000 bonds to extend sewer system, etc. (See Electric Plants.)

Fla., Miami.—City will construct 8-in. vitrified pipe sewer on 14th, 12th and 7th Sts., Ave. J, Ave. K and Ave. B; W. B. Moore, City Clerk, receives bids until May 20. (See Machinery Wanted.)

Fla., New Smyrna. — City, G. W. Brown, Chrmn. Board Public Works, will construct water-works and sewer systems; includes 1090 ft. 18-in., 2270 ft. 15-in., 5920 ft. 12-in. and 19,315 ft. sewer pipe, etc.; bids until May 26 for machinery, tower and tank and water-softening plant; other material, May 19; J. B. McCrary Co., Engr., 1408 Third National Bank Bldg., Atlanta, Ga.; $12,000 bonds previously noted voted. (See Machinery Wanted.)

Fla., West Palm Beach.—City let contract Jonas & Garretson at $69,691 to construct sanitary sewers, pave streets and build seawall; sewer construction includes 21,335 ft. 8, 10 and 12-in. sewers, with manholes, flush tanks, etc.; Engr., J. B. McCrary Co., Third National Bank Bldg., Atlanta, Ga.; A. M. Lopez, Clerk. (Call for bids lately noted.)

Ga., Baxley.—City and county let contract for engineering and construction of lately-noted sewer system to W. Hopson Goodloe, American National Bank Bldg., Macon, Ga.

Ky., Barbourville.—Barbourville Sewer Co., capital $15,000, incptd. by C. P. Kennedy, R. H. Newitt and C. A. Main.

Md., Baltimore.—City will build Section 2 of Ferry Point Interceptor, Sanitary Contract No. 154, and for furnishing 300 tons castings, Contract No. 11; Board of Awards receives bids until May 26; Chas. England, Chrmn. Sewerage Com. (See Machinery Wanted.)

Md., Baltimore.—City let contract to M. O'Herron & Son, 843 N. Howard St., at $20,418.50 to construct Stony Run trunk sewer in North Baltimore, and to Thos. F. Mullan, 4001 York Rd., at $5865 to build road at sewage-disposal works, Back River; contracts Nos. 150 and 151. Contract No. 150 calls for 4900 cu. yds. earth excavation in trench, 560 cu. yds. rock excavation in trench, 6500 lin. ft. 18 to 24-in. sewer, etc. Contract 151, 1500 cu. yds. excavation, 1000 cu. yds. rolled embankment, 800 cu. yds. concrete for roadway resurfacing, etc. (Call for bids lately noted.)

Md., Laurel.—City, Geo. W. Waters, Jr., Mayor, let contract Dabbs & Myers of Meridian, Miss., at $25,267.35 to construct sanitary sewer system; includes about 8.7 mi. 8 to 15-in. sewers, sewage-disposal plant and compressed-air sewage ejectors; Harry Stevens, Engr., Union Trust Bldg., Washington, D. C. (Call for bids lately noted.)

Miss., Clarksdale.—City will vote on bonds to extend sewer system, etc. Address City Commrs. (See Water-Works.)

Mo., Caruthersville.—City, W. D. Byrd, Mayor, will construct sewer system; about 7 mi. 8 to 18-in. pipe, 81 manholes, 25 flush-tanks, sewage pumping station, pumps and Mississippi River outfall; bids until June 2; Frank L. Wilcox, Engr., Syndicate Trust Bldg., St. Louis. (See Machinery Wanted.)

Mo., Springfield.—City is reported to vote on $50,000 bonds to build sewage-disposal plant and for other municipal improvements. Address The Mayor.

N. C., Elizabeth City.—City let contract G. W. Switzer & Son at about $3000 to construct reinforced concrete sewer; J. S. Whitehurst, City Engr. (Bids lately noted.)

N. C., Hertford.—City, W. E. White, Mayor, will issue $13,000 bonds for sewer system. Address W. C. Winslow, Clerk.

Tenn., Chattanooga. — Hamilton county will construct pipe storm-water sewer from Oak and Carpenter Sts. along Carpenter St. and McCallie Ave. to Shallow Ford; cost $2000; bids until May 31; H. B. Bryan, County Engr.; Will Cummings, County Judge. (See Machinery Wanted.)

Tex., Austin. — City, A. P. Wooldridge, Mayor, will vote June 9 on lately-noted $50,000 bonds for sanitary sewers. (See Road and Street Work.)

Tex., Cleburne. — City Council adopted plans for sewer system; C. W. Breech, Mayor. (Reported in March to have voted $180,000 bonds.)

Tex., Houston.—City will construct sanitary sewers on West Montgomery Rd. and Freeman St.; bids until May 24; Ben Campbell, Mayor. (See Machinery Wanted.)

Tex., Marlin.—City, E. W. Bounds, Mayor, will vote June 15 on $45,000 bonds for sewer construction; Levi Goodrich, City Engr.

Tex., San Benito.—City contemplates voting on bonds to build sewage-disposal plant. Address The Mayor.

Tex., Temple.—City will extend sanitary sewer system in northern section; estimated cost $15,000; invites bids until May 25 for material. Address The Mayor.

Va., Richmond.—Chas. E. Bolling, City Engr., submitted report to Administrative Board estimating cost of constructing sewer system in Swansboro (suburb) at $409,327.34.

W. Va., Bridgeport.—City let contract Andrew L. Nickolich, Fairmont, to construct sewer system and water-works. (Reported in January to have voted $23,000 sewer and water-works bonds.)

W. Va., Dunbar.—Dunbar Land Co. will install 1½ mi. sewers; plans by C. E. Walker, company's Engr., and construction under J. A. Bolden, company's Mgr.

W. Va., Ravenswood.—City, Ira S. Bartlett, Mayor, let contract W. N. Sauer Plumbing Co., Pittsburgh, Pa., to construct sewer system; cost $7306.08; J. V. Dunbar & Son Engrs. (Bids lately noted.)

TELEPHONE SYSTEMS

D. C., Washington.—Chesapeake & Potomac Telephone Co. let contract at $8000 to Andrew Murray, 729 12th St. N. W., Washington, to remodel building at 722 12th St. N. W., and at $5000 to remodel building at 1700 14th St. N. W.

Okla., Nowata.—Link Telephone Co., capital stock $5000, incptd. by John W. Gregg, C. E. Woody, A. A. Bennett and others.

Okla., Waynoka.—McKinley Mutual Telephone Co. incptd. with $1000 capital stock by R. A. Cropp, I. S. Fox and E. Eggleston.

S. C., Camden.—Southern Bell Telephone & Telegraph Co., J. Epps Brown, 1st V.-P., Atlanta, Ga. (lately reported as to make improvements), has made proposition to city relative to installation of new and larger central office switchboard, placing of wires underground in immediate district and general overhauling of entire outside plant, with extensions to aerial cable.

Tenn., Belfast.—Belfast Telephone Co. organized; J. W. Wakefield, Mgr.

Tenn., Knoxville.—Beaver Ridge Telephone Co., capital stock $2000, incptd. by W. L. Roberts, H. H. Hendricks, John May and others.

Tex., Dandera.—Dandera Independent Telephone Co., capital stock $1200, incptd. by J. O. Butler, B. F. Landford, Jr., and Henry Stevens.

Tex., Ozona.—Ozona Telephone Co. organized with L. B. Cox, Prest.; H. W. B. Montgomery and F. F. Friend, V.-P.s; W. D. Barton, Secy.-Treas.

TEXTILE MILLS

Ala., Piedmont—Cotton Yarns.—Coosa Mfg. Co. will erect annex to Mill No. 2 and 10 to 15 cottages; annex to be 118x106 ft.; install about 10,000 spindles, with twisting machinery; cost about $100,000.

Ala., Siluria—Sheetings, etc.—Buck Creek Cotton Mills has been operating by electric drive; generated its electricity; has now contracted to buy electricity from Alabama Power Co., Birmingham. (Lately noted to install electric drive, etc.)

Ga., Columbus—Cotton Cloth.—Hamburger Cotton Mills will add 8000 spindles; has 10,000 spindles, etc.

Ga., West Point—Cotton Duck.—West Point Mfg. Co. will erect 752x132-ft. building; about half of length to be 3 stories, for spinning; other half 1 story and basement, for weaving; also build 450x100-ft. cotton warehouse; slow-burning mill construction; plant to generate steam for heating, slashing and fire protection; J. E. Sirrine, Archt.-Engr., Greenville, S. C. (Lately reported to invest $500,000 for additional mill of 20,000 spindles, etc., for duck production.)

N. C., Albemarle—Cotton Yarn.—Wiscassett Mills Co. is reported to install 12,000 spindles and accompanying machinery in additional mill lately reported; previous reports stated let contract to Holdbrooks & Marshall, Salisbury, N. C., for construction 3-story mill building.

N. C., Thomasville—Cotton Yarn.—Amazon Cotton Mills will not build large addition; recent report was an error; has built small packing-room.

N. C., Valdese — Lace, etc. — Waldensian Swiss Embroidery Co., capital stock $125,000, incptd. by Henry Clott of New Bergen, N. J.; August Clott and Alex. Constantin, both of Weehawken, N. J.

S. C., Gaffney—Cotton Goods.—Irene Mills will construct building and install machinery for finishing plant; let contract to Curry & Son, Gaffney, for 1-story-and-basement 250x115-ft. brick structure.

Tenn., Johnson City—Cotton Goods, etc.—Chamber of Commerce, Thos. P. Boone, Secy., interested in plan for organizing $350,000 company to build cotton mill and 2 companies to build knitting mills.

WATER-POWER DEVELOPMENTS

Tenn., Erwin.—Heath & Co., Charlotte, N. C., are reported to have purchased water-power site, including 500 acres land, on Nolichucky River, 1 mi. below Erwin, with intention to build hydro-electric plant.

WATER-WORKS

Ark., Ashdown.—City let general contract C. W. Cardwell of Texarkana, Ark., at $13,233 to construct water-works; city to furnish material; Engrs., Winters & Dove, Fort Smith, Ark. (Call for bids and further facts lately noted.)

Ark., Benton.—City, R. C. Bailey, Mayor, will construct lately-noted water and sewer systems; contemplates street-lighting system in connection with water-works; expend $100,000 on water-works and sewers; water-works capacity 175,000 gals. daily; 300,000-gal. settling tank; open bids in about 30 days; probably let contract to J. B. McCrary Co. (previously noted as Engr.), Atlanta, Ga.; Geo. Hughs, M. F. Scott and W. M. Steed, Commrs. of Dist.

Ark., Paragould.—Commrs. Water Improvement Dist. No. 2, H. W. Donaldson, Secy., let contract Reodecker & Connor of Kansas City, Mo., to construct water-works; cost $28,000; Engr., W. B. Rollins, Kansas City, Mo. (Lately reported to have sold $25,000 bonds.)

Ark., Walnut Ridge.—City is considering construction of water-works and sewer system. Address The Mayor.

Fla., Fort Meade.—City, J. J. Singleton, Secy., Bond Trustees, will issue $58,000 bonds for extension water systems, etc. (See Electric Plants.)

Fla., New Smyrna.—City, G. W. Brown, Chrmn. Board Public Works, will construct water-works and sewer systems; includes 75,000-gal tank on 75-ft. tower, water-softening plant of 150,000-gals.-per-24-hours capacity, 11,000 ft. 1½-in. galvanized-iron pipe, pumps, boilers, tanks, etc.; bids on May 26 for machinery, tower and tank and water-softening plant; other material May 19; J. B. McCrary Co., Engr., 1408 Third National Bank Bldg., Atlanta, Ga.; $47,000 bonds previously noted voted. (See Machinery Wanted.)

Ga., Alma.—City, W. L. Thompson, Mayor, let contract at $10,660.95 to B. F. Roberts, Macon, Ga., to construct previously-noted water-works; galvanized 15x30-ft. pump-house, 50 H. P. oil engine, 150 G. P. M. deep well pump, 60,000-gal. steel tank on 75-ft. tower, water mains and galvanized pipe; city bores deep well; materials, etc., all purchased, excepting pump. (See Machinery Wanted.)

Ga., Dawson.—City votes June 15 on $20,000 bonds to extend water mains and better equip fire department. Address The Mayor.

Ga., Forsyth.—City will drill deep well to increase water supply; work by city force; cost within $2000. Address The Mayor.

Md., Frederick.—City will lay cast-iron pipes, castings, valves, etc.; bids until May 28; Geo. A. Burck, Water-works Supt.; Wm. H. Boardman, Engr., 426 Walnut St., Philadelphia, Pa. (See Machinery Wanted.)

Md., Laurel.—City, Geo. W. Walters, Jr., Mayor, let contract Thos. Hampton, 1416 F St. N. W., Washington, D. C., to construct water-works extension; includes about 3¼ mi 2 to 8-in. mains, sand filter plant, motor-driven pumping machinery, etc.; concrete filter house; $2000 to be expended; Harry Stevens, Engr., Union Trust Bldg., Washington, D. C. (Call for bids lately noted.)

Miss., Clarksdale.—City will vote on $150,000 bonds to enlarge water and light plant, extend sewer system, increase fire equipment, purchase automobile street sprinklers and erect school building and $35,000 city hall. Address City Commrs.

Miss., Pass Christian.—City Council decided to issue $30,000 of bonds to extend water-works and erect city hall. Address The Mayor. (Lately noted.)

Mo., Caruthersville.—City, W. D. Byrd, Mayor, will improve water-works; about 3 mi. 4 and 6-in. cast-iron pipe, 24 hydrants, valves, etc.; also pumping station; well already contracted; bids until June 2; Frank L. Wilcox, Engr., Syndicate Trust Bldg., St. Louis. (See Machinery Wanted.)

Mo., Gallatin.—City is reported to have voted $17,000 bonds to extend and improve water-works and electric-light plant. Address The Mayor.

Mo., Rolla.—City will construct steel water tower 30 ft. high on concrete base; bids until May 24; submit 4 propositions as to capacity—150,000, 200,000, 250,000 and 300,000 gals., respectively; W. J. Pierce, City Clerk. (See Machinery Wanted.)

N. C., Hertford.—City, W. E. White, Mayor, will issue $17,000 bonds for water-works. Address W. C. Winslow, Clerk.

Okla., Bromide.—Board of Trustees retained Benham Engineering Co., Oklahoma City, Okla., to prepare plans, estimates and specifications for water-works and electric-light system; contemplates $15,000 bond issue. (See Electric Plants.)

Okla., Oilton, P. O. at Jennings.—City will construct water system; franchise controlled by Eaton & Dunn, promotors of townsite (Oilton).

Tenn., Briceville. — City will construct reservoir on nearby hill and lay pipe line for school building to be erected. Address The Mayor.

Tenn., Memphis.—City let reservoir contract Koehler Bros.-Fowler Construction Co., 68 W. Court Ave., Memphis; contract consists, in the main, of 30,000 cu. yds. excavation, building arch culvert with 14-ft. radius, cutting new channel through reservoir and lining same with concrete (about 700 cu. yds.); after new channel is completed Bayou Gayosa will be diverted and old channel filled.

Tenn., Milan.—City will expend about $8000 to improve present water and light system; lately noted. (See Electric Plants.)

Tex., Beaumont.—City will extend water-works canal; J. G. Sutton, City Secy., receives bids until May 18; Engrs., Burns & McDonnell, 821-826 Scarritt Bldg., Kansas City, Mo.; Emmett A. Fletcher, Mayor. (See Machinery Wanted.)

Tex., Cotulla.—City let contract F. M. Burkett of San Antonio, Tex., to drill artesian well for water-works. (Reported in Sept. to have voted $14,000 bonds.)

Tex., Honey Grove.—Holts Heights Water Co. plans to build pumping plant.

Tex., Marlin.—City, E. W. Bounds, Mayor, will vote June 15 on $15,000 bonds for water-works extension. Levi Goodrich, City Engr. (Lately noted.)

Tex., Temple.—City Council adopted plans for municipal improvements, including construction of concrete dam and spillway at water-works pumping station to conserve water supply; estimated cost $20,000; invites bids until June 8. (Noted in March.)

Tex., Timpson.—City voted $17,000 bonds for water-works; engaged engineer. Address The Mayor.

Tex., Seguin.—Seguin Water-Works Co., Owen A. Gafford, Mgr., asks bids on pump for lately-noted water-works improvements. (See Machinery Wanted.)

Va., Galax.—City, D. A. Robertson, Mayor, let contract to R. L. Blevins, Bristol, Tenn., to install 20,000 ft. cast-iron pipe, 45 hydrants, valves, etc.; also let contract Lineberry & Lineberry to bore well; water-works construction includes small pumping station and concrete reservoir of 100,000 gals. capacity; plans by M. S. Hudgins, Pulaski, Va.

Va., Timberville. — Timberville Water Corp., capital $25,000, incptd.; C. J. Smucker, Prest.; J. H. Hoover, V.-P.; R. S. Bowers, Secy.-Treas.

W. Va., Bridgeport.—City let contract Andrew L. Nickolich, Fairmont, to construct water-works and sewer system. (Reported in January to have voted $23,500 water-works and sewer bonds.)

W. Va., Ravenswood.—City, Ira S. Bartlett, Mayor, let contract for water system, cost $11,750; construction includes 80 H. P. engine and 2 cypress tanks, capacity 100,000 gals.; $3000 brick building will be erected, but not by contract; plans for water system by J. V. Dunbar. (Bids lately noted.)

W. Va., Wheeling.—City defeated $640,000 bonds to install Smith slow sand filter system; Chas. B. Cooke, City Engr. (Lately noted.)

WOODWORKING PLANTS

Ala., Alexander City—Sash, Doors, etc.—Alexander City Mfg. Co. will establish previously-noted factory for sash, doors, blinds and screen goods moldings; P. L. Craddock, Prest.; J. L. White, V.-P.; B. J. White, Secy., Treas. and Mgr.; open bids June 15 to erect 40x100-ft. building with sheet-iron roof and sides after plans by C. V. Gates, Opelika, Ala.; cost of machinery $3500; needs sanding machine. (See Machinery Wanted.)

Ark., Jelks, P. O. at Grays—Staves.—Baxter Stave Co. (lately noted incptd., capital $7500) organized; L. C. Baxter, Prest.-Mgr.; J. E. Baxter, V.-P.; Geo. T. McCoppin, Secy.-Treas., all of McCrory, Ark.; will erect mill-construction building by day labor; install machinery, cost $2500, to manufacture slack-barrel staves.

Fla., Palatka — Tubs and Pails.—Florida Woodenware Co. will rebuild plant lately reported burned at loss $50,000 to $60,000; erect mill-construction buildings; install machinery to manufacture wooden lard tubs and pails; daily capacity 1500.

La., New Orleans—Cooperage, etc.—Gulf Woodworking Co., 508 Interstate Bldg., will let lately-noted rebuilding contracts to local contractors on percentage basis; has machinery.

FIRE DAMAGE

Ala., Albertville.—Albertville Trading Co.'s store; loss $15,000.

Ala., Gadsden. — Gulf States Steel Co.'s plant; loss $20,000 to $25,000.

Ala., Russellville.—Franklin Hotel; W. S. Douglass' store, loss $30,000; T. E. Leftwich's store, loss $7000; Gresham & Key's building and office fixtures, loss $3000.

Ala., Tallassee.—Bank of Tallassee and 10 other structures; total loss about $100,000.

Ark. Argenta.—Matthews Block at Main and 2d Sts., owned by Justin Matthews of Little Rock; loss on building $70,000.

Ark., Conway.—Two buildings owned by Cole & Co. and occupied by W. W. Westmoreland and H. Rephan; loss $10,000.

Ark., Ozark.—John Callahan's store, 8 mi. from Ozark; loss $3500.

Ga., Lafayette.—Capt. Wm. McWilliams' residence, eight miles from Lafayette.

Ga., St. Mary's.—Buildings owned by Capt. L. Johnson and occupied in part by Atlantic, Waycross & Northern R. R. and Dr. J. C. Williams; loss $5000.

Ky., Clinton.—Hotel Henderson, owned by Mrs. Jerry M. Potter; loss $8000.

Ky., Barbourville.—Riverside Hotel; loss $10,000.

Ky., Lucas.—J. C. Greer & Co.'s store; loss $3000.

Ky., Paducah.—Fraternity Bldg., owned by A. F. and A. M.; loss $52,000.

Ky., Pleasureville.—J. H. Malin's stable, loss $15,000; J. H. Cougleton's building, loss $18,000; V. F. Fallis' lumber yard, loss $15,000; Brown barber shop; W. K. Estis' meat market, loss $7500; Fallis' Hall; D. I. McGowan's blacksmith shop; E. B. Banta's coal yard and store; H. W. Hudson's store, loss $7000.

Ky., Louisville.—W. A. Thomson's residence on tract between Zimlich lane and Newburg Rd.; loss $6000.

Ky., Winchester.—Central Hotel; loss on building, owned by J. M. Stevenson and F. H. Haggard, $7500.

La., Donaldsonville. — Boarding-house of Lemann Co.'s Palo Alto plantation on Bayou Lafourche, 3 miles from Donaldsonville.

La., New Orleans.—Southern Mattress Co.'s plant at 331 Decatur St.; loss on building, owned by Henderson Land Co., $10,000; Ernest J. Gomez's store at 329 Decatur St.; loss on building, owned by John M. Vergnolle, $10,000.

Md., Jefferson.—Dwelling, barn and outbuildings of Geo. G. Steiner & Co.

Md., Lansdowne.—W. Ralph Taylor's residence; loss $4000 to $4500.

Mo., Sedalia.—J. Frost Waddell's barn; loss $6500.

Miss., Binnsville.—John Byrd's store.

Mo., St. Louis.—Apartment-house at 3928-40 N. Taylor Ave., and occupied by families of J. Williams and Mrs. Henry Hahne.

S. C., Florence.—Gate City Supply Co.'s building, owned by T. C. Willoughby; loss on building $6000. (Lately noted.)

S. C., Greenville.—Hendricks & Looper's store; N. H. Harris, store.

S. C., Summerville.—Engine-house, boiler-room and poulty-house of Pine Forest Inn.

Tenn., Lewisburg.—Cumberland Presbyterian Church at Bethlehem, near Old Berlin. Address The Pastor.

Tenn., Nashville.—Residence of I. W. Richardson at Pennington Bend.

Tex., Cameron.—V. M. Eanes' residence; loss about $5000.

Tex., Cleveland. — Herald Printing Co.'s plant, T. L. Tucker, owner, loss $2000; R. L. Williamson's store, loss $5000; Bate Simmons' store, loss $3000.

Tex., Corsicana.—W. H. Bart's building, occupied by Vandlon Bros., loss $3500; Gem Theater, owned by Billy Cutchigos, loss $3000.

Tex., Hillsboro.—Ben F. Perryman's residence at 111 Matthew St., owned by. Joe Hancock; loss $3500.

Tex., Laredo.—Dixie Moving Picture Theater; loss $4500.

Tex., Mart.—W. L. Lowry's blacksmith shop; estimated loss $4500.

Tex., Nacogdoches.—Public High School; loss $10,000. Address The Mayor.

Tex., Temple.—W. E. Dozier's residence; loss $6000.

Va., Berkley, Sta. Norfolk.—J. W. Blassingham's residence; loss $3000 to $5000.

Va., Blackstone.—R. E. Jones' stores, loss $3000; W. M. White's store.

Va., City Point.—E. E. Wiggin & Co.'s restaurant, loss $3000; J. F. Brown's store, loss $3000; Pietro Coresini's store and restaurant, loss $5000; F. M. Seneca's Italian Bank, store and bakery, loss $8500; all at Hopewell.

Va., Danville.—High Street Colored Baptist Church, Rev. H. A. Moses, Pastor.

Va., Irvington.—Clarence Squire's residence near Irvington; loss $3000.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Ark., Argenta. — Justin Matthews, Little Rock, will rebuild burned portion of Matthews Block. (See Stores.)

D. C., Washington.—Col. Geo. Truesdell has plans by Arthur B. Heaton, 801 Wilkins Bldg., Washington, for apartment-house at Columbia Rd., Wyoming Ave. and 20th St.; 7 stories; 85x184 ft.; fireproof, brick and stone; tile and slag roof; electric light; bids opened May 24; bidders are Geo. A. Fuller Co., 1118-23 Munsey Bldg.; Davis Construction Co., 602-3 Union Trust Bldg.; Richardson & Burgess, 1413 H St. N. W.; Frank Wagner, 1413 H St. N. W.; W. P. Lipscomb & Co., 1405 F St. N. W.; all of Washington. (Lately noted.)

Ky., Paducah.—Mrs. A. B. Sowell will erect apartment-house at 1325 Broadway; brick; 4 suites; cost $10,000.

Mo., St. Louis.—Lesatte Realty Co. will erect 2 two-story tenements at 3931-37 Minnesota St.; cost $9200; construction by owner.

Mo., St. Louis.—Stanford Investment Co. acquired site 50x140 ft. at Mississippi and Allen Aves. and will erect 3-room flats.

Mo., St. Louis.—Oscar A. Elmo will erect 3 apartment-houses on Waterman Ave.; 3 stories; red-stock brick and cut-stone exterior; red and green Spanish tile roof; each apartment to contain 3 seven-room suites, with reception hall, sun parlor 10x13 ft. in rear, porches and 2 baths; fireproof entrance hall; stairways of steel, with marble and tile floors and marble wainscoting from 1st to 3d floor; hardwood floors throughout; copper screens; Herrick refrigerators; intercommunicating telephones; down-draft smokeless steam-heating boiler; 1-story brick garages in rear; cost $90,000.

Mo., St. Louis.—Guarlford Realty & Investment Co. incptd. with $50,000 capital stock; Richard A. Bullock, Prest.; Geo. B. Bullock, V.-P.; will erect 3 stores on Hodiamont Ave., with 3 three-room and tile-bath apartments above; also erect 7 apartments, each to contain 4 suites of 3 rooms and bath; brick and terra-cotta fronts; Nolte & Nauman, Archts., St. Louis; construction under supervision of R. A. and G. B. Bullock.

Okla., Tulsa.—G. R. McCullogh, Prest. of First National Bank, is reported to have plans prepared for 2-story flat at 13th and Main Sts.

Tex., El Paso.—Phoenix-El Paso Building Co. will erect brick apartment-house in Cotton Addition; cost $9000.

Tex., El Paso.—J. K. Turbeville will erect brick tenement-house on Campbell St.; cost $5500.

Tex., El Paso.—Jolly & Morris have plans for apartment and store building. (See Stores.)

Tex., El Paso.—Perry-Kirkpatrick Co. is erecting apartment-house at Kansas and Nevada Sts. for American Lumber Co.; 2 stories; mission style; 8 four-room suites.

Va., Norfolk.—J. E. Barclay will erect 2-story apartment-house on 28th St.

Va., Norfolk.—D. A. Underdown will erect 3-story brick apartment-house at Colonial Ave. and 28th St.; cost $13,500.

Va., Norfolk.—Edward Richardson has plans by Philip B. Moser, Norfolk, for apartment-house at Lambert's Point; 2 stories; brick; four 4-room suites; bids opened May 20.

Va., Richmond.—Philip Trana will erect 2-story brick tenements at 417-19 N. 26th St.; cost $5000.

Va., Richmond.—Clifford Smith will erect 3-story $20,000 apartment-house on Monument Ave.

Va., Richmond.—P. J. Beattie will erect 2-story $14,000 apartment-house at Stuart Ave. and Robinson St.

Va., Richmond.—Robt. E. Nelson will erect 2-story frame dwelling, brick veneer, at 407 Seminary Ave., Ginter Park; cost about $10,000.

W. Va., Huntington.—C. W. Cammack will erect 2-story apartment and business building.

W. Va., Wheeling.—Dr. W. H. McLain will remodel residence for apartments.

ASSOCIATION AND FRATERNAL

Ala., Ensley.—Ensley Lodge, B. P. O. E., plans to erect lodge building at Avenue D and 21st St.; 2 stories; also remodel present structure.

Ky., Lexington.—Y. M. C. A. has plans by F. J. Manley, Lexington, for addition to and remodeling building at 169 Mill St. for Boys' Dept.; 3 stories; 40x75 ft. (Lately noted.)

Miss., Bay St. Louis.—Knights of Columbus are reported to erect building at 2d and Main Sts.

Mo., Joplin.—Joplin Lodge of Perfection Scottish Rite Masons is having plans prepared by Hubbell & Greene, Dallas, Tex., for society building; fireproof; tile roof; reinforced concrete floor; steam heat; electric light; cost about $150,000; bids to be received about July 15; address owners. (Lately noted.)

N. C., Newbern.—A. F. & A. M. will remodel Masonic opera-house building; erect additions at both ends, provide colonnade at Hanover St. front, etc.

N. C., Winston-Salem. — Winston-Salem Aerie No. 733, F. O. E., acquired site on Elm St. and plans to erect building; J. F. Tesh, T. A. Butner, Geo. Agee and others, Com.

Okla., Bartlesville.—Y. M. C. A. is having plans prepared by Shattuck & Hussey, 19 S. La Salle St., Chicago, to erect building; cost about $50,000; bids opened about June 1. (Lately noted.)

S. C., Columbia.—Richland Lodge No. 39, A. F. and A. M., has plans by Urquhart & Johnson, Columbia, for Masonic temple to replace burned structure; 3 stories; fireproof; steel construction; steam heat; electric lights and gas; contracts let by Aug. 1; provision for 3 additional stories. (Lately noted.)

BANK AND OFFICE

Ark., Argenta. — Justin Matthews, Little Rock, will rebuild burned portion of Matthews Block. (See Stores.)

Ark., Lepanto.—L. M. Weathers, Memphis, Tenn., prepared plans for bank building to cost about $4500.

D. C., Washington. — Speiden & Speiden are preparing plans for office and store building. (See Stores.)

Ga., Gainesville.—Felix Jackson is considering erection of store and office building on E. Washington St.; 4 stories with basement; steam heat; electric elevator; also plans to enlarge and remodel residence on Green St.

Okla., Drumright.—Drumright State Bank will erect 2-story bank and office building; cost about $20,000.

Okla., Tulsa.—S. Gallais is reported to erect office building at 4th St. and Boston Ave.; 8 stories; reinforced steel construction; 50x140 ft.; marble floors on 1st floor and lobby; vitrified brick; 147 offices; cost about $150,000.

Tex., Fort Worth.—Dr. C. F. Hayes and L. B. Clark are reported to erect store and office building. (See Stores.)

Tex., Roby.—C. N. Hutto has plans for 2-story office building; metal lath and stucco concrete; cost $3500 to $4000; contract let about May 20.

Va., City Point.—F. M. Seneca is reported to erect bank and business building to replace structure at Hopewell noted damaged by fire at loss of $8500.

Va., Purcellville. — Purcellville National Bank will erect bank building to replace burned structure; 29x65 ft.; money and fireproof storage vaults; ceiling 22 ft. high; brick; tile floors; marble and bronze counter scheme.

Va., Richmond.—Thos. L. Moore will erect office building on 9th St.; 2 stories.

CHURCHES

Ala., Birmingham. — Handley Memorial Presbyterian Church, Rev. J. Frank Turner, pastor, has preliminary sketches by Clifford Evans, Birmingham, for structure at 13th Ave. and 25th St., Norwood; Georgia colonial style; main auditorium to seat 1000, including gallery; Sunday-school auditorium to seat 400. (Lately noted.)

D. C., Washington.—St. Andrew's Church has plans by Chas. W. Bolton & Son, Witherspoon Bldg., Philadelphia, Pa., for building at New Hampshire Ave. and B St.; 118.7x51.8 ft.; 2 stories; fireproof, brick, terra-cotta and concrete; concrete floors, wood overlaid; steam heat; electric light; bids due May 28. (Noted in March.)

Fla., Jacksonville. — St. John's parish adopted plans for parish-house to cost about $30,000; W. A. Bours, R. N. Ellis, John S. Bond and others, Com.

Ga., Columbus. — First Baptist Church (Colored) will erect building at 5th Ave. and 9th St.; bids opened May 19; James A. Luke, 538 4th Ave., may be addressed.

Ga., Eatonton.—Asa M. Marshall Memorial Baptist Church, Rev. W. S. Walker, pastor, Monroe, Ga., will erect building at Imperial Cotton Mills, 2 mi. from Eatonton.

La., New Orleans.—Rev. Father Lorento will rebuild lately-burned chapel and school.

Mo., Richmond.—Methodist Church, Rev. Cecil M. Aker, Pastor, is having plans prepared by Eckel & Aldrich, St. Joseph, Mo., for building; 65x130 ft.; native stone construction; slate or tile roof; cost about $35,000; plans ready for bids about June 1. (Lately noted.)

N. C., Winston-Salem. — Zion Methodist Church (Colored) is having plans prepared by Humphreys & Faw, Winston-Salem, for building in East Winston; brick and stucco; asbestos shingles; hot-air heat; electric lighting; cost $10,000.

N. C., Winston-Salem.—Reformed church is having plans prepared by Humphreys & Faw, Winston-Salem, for building at Southside; brick and stucco; steam heat; asbestos shingle roof; electric lighting; cost $15,000. (Lately noted.)

Okla., Tulsa.—First Methodist Church will erect building at 6th and Boulder Sts. Address The Pastor.

S. C., Columbia. — Waverly Methodist Church, Rev. A. L. Gunter, pastor, will erect building; brick; cost about $5000.

Tenn., Cleveland.—Church of Christ will erect building 42x60 ft., annex 24x42 ft.; brick or concrete; metal shingle roof; auditorium and annex for Sunday-school; cost about $20,000; construction to begin October 1. Address The Pastor. (Lately noted.)

Tex., Coleman.—First Baptist Church is considering plans for building; brick; pipe organ; cost about $25,000. Address The Pastor.

Tex., Denton.—First Baptist Church will erect $3000 parsonage. Address The Pastor.

Tex., Miles.—M. E. Church South opens bids about June 1 to erect Sunday-school; ordinary construction; shingle roof; pine floor; coal heaters; electric lighting; cost $3000; H. M. Harvin, Archt., San Angelo, Tex.; address C. W. Hardan, Miles; lately noted. (See Machinery Wanted.)

Va., Luray.—Christ Protestant Episcopal Church, Rev. C. J. Gibson, rector, has plans by Mims, Speake & Co., Luray, for building; brick; 40x70 ft.; Gothic style; cost $5000.

W. Va., Charleston.—Baptist Church will erect building at Cant and Donnally Sts.; 36x60 ft.; frame; shingle roof; pine floor; gas-steam heating; gas light; Dr. W. L. Jones, 508 Court St., interested.

W. Va., Huntington.—Baptist Church will erect addition to church at Bradrick. Address The Pastor.

W. Va., Huntington. — Trinity Episcopal Church has tentative plans by Victor Reeser, Huntington, for building for church, rectory, parish-house, etc.

CITY AND COUNTY

Fla., Jacksonville—Sheds.—Port Com., F. W. Bruce, Ch. Engr., asks bids until June 10 on previously-noted sheds on municipal pier. (See Miscellaneous Construction.)

Ga., Albany—City Auditorium.—City is having plans prepared by A. Ten Eyck Brown, Forsyth Bldg., Atlanta, for auditorium; ordinary construction; face brick; composition roof; low-pressure steam heat; plans ready in about 30 days; cost complete about $40,000. (Lately noted.)

Ga., Thomasville — Auditorium. — City is considering ordinance calling for $40,000 bond issue to erect auditorium. Address The Mayor.

Ga., West Point—Auditorium.—Auditorium Com., B. H. Hill, Chmn., selected site for proposed auditorium; 98x98 ft.; building to seat 1100; press brick; Corinthian columns at 2 entrances; cost $15,000.

Ky., Louisville—Police Station.—Board of Public Safety opened bids to erect police station at 28th and Main Sts., according to plans by E. W. Hillerich, 725 S. 24th St., Louisville; lowest bidders are: John Greiner & Son, at $23,785 for general contract; Childers & Waters, $700, electrical work; Jacob Isaac Plumbing Co., $1250, plumbing; F. A. Clegg & Co., $1280, installing heating apparatus; Brecher-Buck Co., $1336, marble and tile work. (Lately noted.)

Md., Baltimore — Library. — Enoch Pratt Free Library is having plans prepared by Otto G. Simonson, Maryland Casualty Tower, Baltimore, for branch at 20th and Wolfe Sts.

Md., Govans—Engine-house and Police Station.—County Commrs., Towson, Md., are having plans prepared by A. Murray Myers, 219-a Equitable Bldg., Baltimore, for engine-house and police station; ordinary construction; slate and Johns-Manville roofing; steam heat; electric lighting; cost about $6000; bids opened May 25. Address Commrs.

Miss., Clarksdale—City Hall.—City will vote on $150,000 bonds to erect city hall to cost about $35,000, etc. Address The Mayor. (See Water-works.)

Miss., Pass Christian — City Hall. — City will issue $30,000 to erect city hall and extend water-works system. Address The Mayor. (Lately noted.)

Miss., Vicksburg—Fire Station.—City contemplates erecting central fire station; will consider sketches by Wm. Stanton and W. J. Donovan, Vicksburg.

N. C., Danbury—Home.—Stokes county is having plans prepared by Humphrey & Faw for home; cost $20,000; consider plans June 7. Address J. G. Morefield, Danbury. (Lately noted.)

Okla., Oklahoma City — Jail. — Oklahoma County Commrs., E. L. Shelden, Chrmn. of Board, will improve jail, calcimine all plastered walls except basement, coat white paint on all ironwork and cells except basement, coat varnish on all woodwork except basement; bids received until May 17.

Okla., Tulsa—Market.—City rejected all bids to erect market; J. W. Hawk, Archt., Tulsa. (Lately noted.)

Tex., Aldridge—Jail.—Jasper county plans to erect courthouse and jail. Address County Commrs.

Tex., Bridgeport — City Hall. — City has plans by Evan Jones, Wichita Falls, Tex., for city hall; bids received until May 20.

Tex., Houston—Stable, etc.—E. B. Bonney, City Controller, receives bids until May 25 to erect warehouse and stable on block 80, Noble addition; plans and specifications at office of City Archt.; Ben Campbell, Mayor.

Va., Richmond.—Resthouse.—City will erect resthouse at Chimbarazo Park; 60x60 ft.; slate roof; wood floor; gas radiator heat; cost about $5500; bids opened May 19 by Administrative Board. (Lately noted.)

W. Va., Richwood—Municipal Building.—City, A. A. Williams, Recorder, will soon open bids to erect municipal building on Main St.; 32½x96 ft.; ordinary construction; asbestos roof; basement floor concrete; other floors wood; cost $12,000; steam heat, $500; electric light, $300; prism glass vault lights; J. A. Tincher, Archt., Richwood; address Recorder. (Lately noted.)

COURTHOUSES

Ky., Lawrenceburg.—Anderson county, J. S. O'Dell, Judge, is having plans prepared by Joseph & Joseph, 809 Great Southern Bldg., Louisville, for 2-story courthouse; cost about $60,000.

Tex., Aldridge. — Jasper county plans to erect courthouse and jail. Address County Commrs.

Tex., Del Rio.—Valverde county is having plans prepared by Atlee B. Ayres, San Antonio, to remodel courthouse; 3 stories; stone.

Tex., Johnson City.—Blanco county votes June 19 on $30,000 to erect courthouse. Address County Commrs.

DWELLINGS

Ala., Attalla.—John Keener contemplates erecting residence.

Ala., Attalla.—Ben Stowers will erect residence.

Ala., Boaz.—Dr. Hersey plans to erect $5000 residence.

Ala., Gadsden.—A. W. Taylor will erect residence on Turrentine Ave.; A. D. Simpson, Archt., Gadsden.

Ala., Huntsville.—Mrs. Lula Harris has plans by L. M. Weathers, Memphis, Tenn., for $5000 residence.

Ala., Huntsville.—Miss Gertie Collins has plans by L. M. Weathers, Memphis, Tenn., for $4000 residence.

Ala., Selma.—James Mallory will erect dwelling on King St.

Ark., Little Rock.—W. S. Lee will erect 2-story brick-veneer residence at 3000 Berry St.; cost $5000.

D. C., Wshington.—D. J. Dunnigan, 203 Bond Bldg., planned and will erect 3 dwellings at 2707-11 Sherman Ave.; 16.8x28 ft.; brick; tin roof; cost $4950.

D. C., Washington.—F. C. Brinley, 1304 Delafield Pl., has plans by W. R. Tallbott, 1314 F St. N. W., Washington, for dwelling at 5017 13th St. N. W.; 27x38 ft.; frame; slate roof; hot-water heat; electric light; cost $4700.

D. C., Washington.—F. R. Gordon, Colorado Bldg., planned and will erect 6 dwellings at following addresses: 3207, 12, 16 and 24 Morrison St. and 2224 and 3219 Northampton St.; all 28x32 ft.; hollow-tile construction; slate roof; hot-water heat; electric light; cost $4700.

D. C., Washington.—Harry A. Kite, 1338 G St., has plans by A. E. Landvoigt, 713 14th St., Washington, for 8 dwellings at 227-41 13th St. N. E.; 16x40 and 18x30 ft.; brick; slag roof; hot-water heat; electric light; cost $20,000; construction by owner.

D. C., Washington.—J. H. Lewis, 662 Trinidad Ave., will erect 3 dwellings at 1252-6 Neal St. N. E.; 16.8x32 ft.; brick; tin roof; furnace heat; cost $6000.

D. C., Washington.—G. W. Barkman, 900 Massachusetts Ave., has plans by Geo. T. Santneyers, 412 District National Bank Bldg., Washington, for 8 dwellings at 3202-16 Park Pl. N. W.; seven 18.4 ft. square, one 21.6 ft. square; brick; tin roof; hot-water heat; electric light; cost $20,500; construction by owner.

D. C., Washington.—John R. Haislip, 2126 I St. N. W., has plans by E. O. Volland, 1348 Kearny St. N. E., Washington, for 4 dwellings at 3315-21 12th St. N. E.; three 24x27, one 24x30 ft.; frame; slate roof; hot-water heat; electric light; cost $11,000; construction by owner.

D. C., Washington.—Shannon & Luchs, 713 14th St., have plans by A. E. Landvoigt, 713 14th St. N. W., Washington, for 4 dwellings at 5204-10 14th St. N. W.; 26x33 ft.; frame; slate roof; hot-water heat; electric light; cost $24,000; construction by owners.

Fla., Clearwater.—C. G. Wilder will erect dwelling on Oak St.; 24 ft. square, with porch 10x24 ft.; fireproof; Gray Whitney brick; slate roof; pine interior floor, tile porch floor; electric light; bids to be received Nov. 1. Address owner.

Fla., Fort Myers.—H. E. Harworth, St. Joseph, Mo., will erect bungalow.

Fla., Jacksonville.—Brown Realty Co. will erect 2-story frame dwelling on Oak St. between King and James Sts.; cost $3000.

Fla., Jacksonville.—Thurston Roberts is having plans prepared by W. B. Camp, Jacksonville, to erect dwelling; 2 stories; hollow tile construction; asbestos roof; cost $10,000; plans ready June 1.

Fla., Sanford.—L. P. McCuller will erect 2 dwelings on Myrtle Ave.

Fla., St. Augustine.—Mrs. Rhoda Parker, Arcadia, will erect 2-story residence at Methodist Assembly.

Fla., St. Augustine.—M. G. Callin will erect dwelling in suburbs; 30x40 ft.; ordinary construction; slate roof; pine floor; electric light; cost about $3000; bids opened August 1; address owner; lately noted. (See Machinery Wanted.)

Fla., Tampa.—W. B. Harvard will erect residence; 1½ stories; frame; J. S. Andrew, Archt., Tampa. (Lately noted.)

Ga., Atlanta.—W. J. Davis is reported to erect 6 residences in West End Park, to cost $2500 to $4000 each.

Ga., Atlanta.—John T. Lynch will erect three 1-story 6-room brick residences; cost $4500.

Ga., Atlanta.—Mrs. Bertha L. Holdbrook will erect 2 bungalows; 1 story; 5 and 7 rooms; brick veneer; cost $6750.

Ga., Columbus.—T. E. Raht has plans by C. F. Hickman, Exchange Bldg., Columbus, for residence, and is receiving bids to erect; frame; composition shingles; hardwood floors; cost $3000.

Ga., Gainesville.—Felix Jackson will remodel and enlarge residence on Green St.; 2 stories; frame; colonial portico; 3 additional baths; sun parlor; cost $2500 to $4000; S. D. Trowbridge, Archt., 522 Grant Bldg., Atlanta.

Ga., Vidalia.—O. T. Donovan has plans by S. D. Trowbridge, 522 Grant Bldg., Atlanta, for residence.

Ky., Hodgenville.—C. N. McGill will erect building for dwelling and store. (See Stores.)

Ky., Hodgenville.—L. B. Hundley has plans by John Tucker, Hodgenville, for dwelling; 40x55 ft.; shingle roof; hardwood floor; hot-air heat; cost $3500 to $4000.

Ky., Louisa.—A. M. Campbell will erect residence; 2 stories; faced with tapestry brick.

Ky., Louisville.—M. J. Murphy will erect brick dwelling at 43d St. and Broadway; cost $3000.

Ky., Louisville.—Wm. Sales will erect brick dwelling at 1520 S. 2d St.; cost $4000.

Ky., Louisville.—Mason Maury will erect dwelling on outskirts of city; 10 or 12 rooms; tile roof; concrete and hardwood floor; hot-air heat; electric light; cost about $13,000; Archt. not selected.

Ky., Louisville.—Consolidated Realty Co. will erect brick-veneer dwelling at 1700 Windsor Pl.; cost $5000.

Ky., Louisville.—C. W. Cutler will erect brick-veneer dwelling at 2146 Alta Ave.; cost $3500.

Md., Baltimore.—J. L. White Realty Co., Potomac and McElderry Sts., has plans by C. Broning for 14 dwellings at 3118-32 and 3121-31 E. Monument St.; 2 stories; 14x47 ft.; brick; Carey roof; hot-air heat; cost $18,000; construction by owner.

Md., Baltimore County.—Walter B. Brooks, Jr., Commerce and Water Sts., Baltimore, contemplates erecting dwelling in Green Spring Valley.

Md., Baltimore.—Mrs. Edw. Shoemaker is having plans prepared by Laurence Hall Fowler, 347 N. Charles St., Baltimore, to remodel dwelling on Calvert St. near Chase St.; interior finish, woodwork and painting; hardwood floors.

Md., Baltimore.—R. Manson Smith is having plans prepared by Laurence Hall Fowler, 347 N. Charles St., Baltimore, to remodel dwelling at 4 E. Biddle St.; interior finish; hardwood floor; cabinet work.

Md., Baltimore.—John J. Carlin, Edmondson Ave. and Hilton St., has plans by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for 27 dwellings on Reisterstown Rd. between Norfolk Ave. and Hilldale St.; brick; slate roof; steam heat; gas and electric light; cost about $75,000; construction by owner. (Lately noted.)

Md., Baltimore.—Maryland Realty Co., Fidelity Bldg., Baltimore, has plans by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for 14 dwellings on Garrison Ave. near Bonner Rd.; 46x50 ft.; brick; Carey roof; steam heat; gas and electric light; cost $30,000; construction by owner.

Md., Garrison.—Donald Symington is having plans prepared by Ferguson, Calrow & Taylor, Norfolk, for addition to dwelling.

Miss., Friar Point.—R. B. Hebdron will erect residence; 2 stories and basement; 48x58 ft.; brick and stone exterior; Hubert T. McGee, Archt., Memphis, Tenn.

Mo., Kansas City.—Dr. A. L. Skoog, 1004 Rialto Bldg., will erect residence on Club Road.

Mo., Kansas City.—A. G. Jackson will erect dwelling at 57th and Wyandotte Sts.

Mo., Kansas City.—Frederick Altergott will erect residence on Westover Rd.; gray pressed brick and cut stone; Italian style; 2 sleeping porches; Shepard, Farrar & Wiser, Archts., Kansas City.

Mo., Kansas City.—Chas. R. Ries is taking bids to erect residence on 5th and Garfield Sts.; 25x28 ft.; ordinary construction; shingle roof; wood floor; furnace heat; gas and electric light; cost $3000; J. Francis Thompson, Archt., 615 Massachusetts Bldg., Kansas City.

Mo., St. Louis.—Wm. Triska will erect residence in Tower Grove Heights.

Mo., St. Louis.—D. Stoffelbaum will erect two 1-story dwellings at 2245-49 Alcott St.; cost $3000; construction by owner.

Mo., St. Louis.—A. Reser will erect 2 one-story dwellings at 4976-78 Arsenal St.; cost $3400; construction by owner.

Mo., St. Louis.—Bush-Burns Realty Co. is erecting group of California bungalows on Wabada Ave. east of Euclid Ave.; 5 rooms; tile bath; hot-water heat; hardwood floors; built-in bookcases, etc.; Edw. J. Lawler, Archt., St. Louis; ultimate plans call for 30 structures.

Mo., St. Louis.—Stephen O. Schumachee, 3622 Keokuk St., will erect dwelling on premises; 25x46 ft.; ordinary construction; composition roof; hardwood floor; $200 hot-water heat; cost $3000. Address owner.

N. C., Winston-Salem.—S. C. Nichols, W. T. Howard and Mr. Gordon are reported to erect residences at Pine Crest.

Okla., Oklahoma City.—H. E. Aurelius will erect dwelling at 1518 W. 33d St.; cost $3000.

Okla., Oklahoma City.—L. A. Mankins will erect dwelling at 1505 North Western Ave.; cost $3000.

S. C., Columbia.—Thos. A. Boyne will erect residence on Gregg St.; 9 rooms; brick; 2 stories; cost $15,000.

S. C., Anderson.—Dr. A. L. Smethers, 630 E. River St., has plans by Casey & Faut, Anderson, to erect dwelling; 38x46 ft.; mill construction; shingle roof; hardwood floors; fireplaces; electric lighting; contract let in few days; cost $4000. Address Archts. (Lately noted.)

S. C., Walterboro.—Irving M. Fishburne, Cashier of Farmers and Merchants' Bank, contemplates erection of residence; construction to begin June 1.

Tenn., Memphis.—Robt. Ruffin will erect 2-story 8-room brick veneer residence; tile roof; hot-water heat; cost $9000.

Tenn., Memphis.—Miss Vera Daniel will erect 1½-story stucco bungalow; cost about $4000.

Tenn., Memphis. — L. Guth will erect 1-story 7-room residence; cost $3000.

Tenn., Memphis.—J. H. Kearney is erecting bungalow; stucco; hardwood finish; cost about $4100.

Tenn., Memphis.—J. W. Garrison will erect 8 dwellings on Keel St.; 4 rooms each; frame; composition roof; total cost $6400; plans and construction by owner. (Lately noted.)

Tenn., Memphis.—Colonial Trust Co. is erecting 7-room stucco bungalow on Young Ave. to cost about $4500.

Tenn., Nashville.—Lou. Lebeck is erecting dwelling according to plans by C. K. Colley, Nashville; 8 rooms; tile roof; hot-air heat; cost $15,000. (Lately noted.)

Tenn., Nashville. — L. D. Reynolds will erect residence; 2 stories; stone; cost $7500; Hart & Gardner, Archt., Nashville.

Tenn., Nashville. — H. L. Buchanan will erect bungalow; 7 rooms; brick; cost about $4000; Geo. D. Waller, Archt., Nashville.

Tenn., Nashville.—Hermitage Real Estate Co. will erect stucco bungalow; C. K. Colley, Archt., Nashville.

Tenn., Nashville. — Richard Plater will erect residence in Belle Meade Park; 2 stories; frame; shingle roof; cost about $15,000; bids opened May 27; Hart & Gardner, Archts., Nashville.

Tenn., Nashville. — G. Q. Lipscomb will erect residence on Belmont Heights; cost $7500; S. M. McMurray, Archt.

Tex., Dallas.—S. J. McFarland will erect residence at 5513 Live Oak St.; cost $12,500.

Tex., Dallas.—W. A. Thomas, 803 Southwestern Life Bldg., will erect dwelling at 3711 Gilbert St.; 8 rooms; 2 stories; ordinary construction; shingle roof; pine floors; gas heating; electric lighting; cost $3000; J. O. Thompson, Asso. Archt., Slaughter Bldg., Dallas. (Lately noted.)

Tex., El Paso.—Lux Ede Teuntas will erect brick bungalow to cost $3500.

Tex., El Paso.—Perry-Kirkpatrick Co. is erecting $15,000 residence in Altura Park for Mrs. C. C. Henderson.

Tex., El Paso.—Perry-Kirkpatrick Co. is erecting 5-room bungalow for Alamo Heights Realty Co.; cost $4750.

Tex., El Paso.—J. F. Mullen will erect 3 brick bungalows in East El Paso; cost $6200.

Tex., El Paso.—Perry-Kirkpatrick Co. is erecting residence on McKinley Ave. for E. G. Perry; 10 rooms; garage and servants' quarters; cost $11,500.

Tex., El Paso.—Perry-Kirkpatrick Co. is erecting residence on McKinley Ave. for J. W. Kirkpatrick; 9 rooms; cost $11,000; also 3 five-room bungalows on 3000 block Montana St. and 2-story residence on Roosevelt St.

Tex., Fort Worth. — J. A. Wagner will erect residence on Alston Ave.; cost $3000.

Tex., San Antonio.—Jack W. Neal has plans by Atlee B. Ayres, San Antonio, for residence; cost $14,000.

Tex., San Antonio.—Wm. A. Wurzbach will erect residence on Fredericksburg Rd. 9 mi. from San Antonio; stone exterior walls; electric lights; steam heat; hardwood floors; cost about $15,000.

Tex., Vernon.—A. B. Swartwood has plans by Evan Jones, Wichita Falls, Tex., for residence.

Tex., Verpon.—Mr. Dixon is having plans prepared by Evan Jones, Wichita Falls, Tex., for residence.

Tex., Wichita Falls.—D. M. Perkins will erect 5-room cottage to replace burned structure.

Va., Norfolk.—S. E. Coggin will erect brick and frame 2-story residence on Colonial Ave.; cost $3100.

Va., Norfolk.—S. L. McGonigal will erect 2-story brick residence at Pennsylvania and

Newport Aves.; slate roof; hot-water heat; cost $4100; Griffin Bros., Contrs., Norfolk.

Va., Norfolk.—Wm. T. Shannonhouse will erect residence in Graydon Ave.; 27x48.10; 2 stories and basement; 11 rooms and 2 baths; slate roof; wood floors; hot-water heat; bids opened May 17; Louis R. Moss, Archt., Norfolk.

Va., Richmond.—Mattie D. Davis will erect 2-story brick dwelling on Grove Ave.; cost $4000.

Va., Richmond.—Dr. S. MacLean will erect 2-story brick dwelling on Monument Ave.; cost $20,000.

Va., Richmond.—Logan Colsan will erect 2-story frame dwelling at Westmoreland Pl.; cost about $15,000.

W. Va., Bluefield.—E. J. McQuail will erect residence on Boyer St.

W. Va., Parkersburg.—T. J. Stephens will erect 2 dwellings.

W. Va., Parkersburg.—J. H. Sigler will erect 6-room residence on Emerson Ave., Camden Riverview addition.

W. Va., Parkersburg.—Brady M. Wigal will erect bungalow.

W. Va., Parkersburg.—Francis H. Fleming of Parkersburg Iron & Steel Co. will erect residence on Murdoch Ave.

W. Va., Parkersburg.—J. H. Randolph, Auditor of Parkersburg Iron & Steel Co., will erect residence.

W. Va., Parkersburg.—J. W. Nelson, C. Burwell and G. L. Snodgrass will erect dwellings on site with frontage of 320 ft. on Murdoch Ave.

W. Va., Parkersburg.—O. S. Dennison will erect 4 bungalows on 27th St.

W. Va., Parkersburg.—Nelson C. Burwell will erect residence.

GOVERNMENT AND STATE

D. C., Washington—Office Building.—Treasury Dept., Jas. A. Wetmore, Acting Supvr. Archt., receives bids until July 13 to erect building for Interior Dept.; about 680,000 sq. ft.; site about 400x400 ft.; 7 stories and basement; face brick and limestone facing; steel frame; tile roof; concrete floors; steam heat; electric light; 11 electric elevators; cost about $2,500,000; copies of plans and specifications may be had from office of Acting Supvr. Archt.; contractors may estimate upon (1) construction, including mechanical equipment (except elevators); (2) construction except mechanical equipment and elevators; (3) mechanical equipment only (except elevators), or (4) elevators. (Lately noted.)

Ky., Louisville — Hatchery. — Commr. of Fisheries, Dept. of Commerce, Washington, receives bids until June 8 for construction of hatchery building; plans and specifications on application.

Okla., Fort Sill—Barracks, etc.—Constructing Quartermaster receives triplicate bids until June 15 to construct quartermaster corps barrack, double set engineers' quarters, magazine, additions to 4 barracks buildings, 5 stables, repairing 9 double officers' quarters, 3 barrack buildings, bank barrack, shops and coal houses; information on application.

Okla., McAlester—Reformatory.—State will erect reformatory at penitentiary; 70x150 ft.; 3 stories; fireproof; cost $10,000, including equipment; convict labor; Robt. L. Williams, Governor, Guthrie, Okla. (Lately noted.)

Tex., Bryan—Postoffice.—Treasury Dept., James A. Wetmore, Act. Supervising Archt., Washington, opened bids to erect postoffice; Algernon Blair, Montgomery, Ala., is lowest bidder at $35,352 for limestone, with stucco facing, and $37,137 for limestone, with brick facing; 1 story and basement; 3600 sq. ft. ground area; first floor fireproof; other ordinary construction. (Lately noted.)

Tex., Corpus Christi—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supvr. Archt., Washington, D. C., opened bids to erect postoffice; Barnes Bros., Logansport, Ind., is lowest bidder at $129,000 for Texas limestone and $119,000 for other limestone. (Lately noted.)

Tex., Fort Sam Houston—Barracks, etc.—Constructing Quartermaster receives triplicate bids until June 4 to construct commanding officers' quarters, 2 six-set bachelor officers' quarters, barrack, administration building and barrack and stable for pack train; information on application.

Tex., Huntsville—Silos.—John H. Bickett, Sr., Finance Commr., receives bids until June 1 to construct 35 silos, 200 tons capacity, on 7 State prison farms.

HOSPITALS, SANITARIUMS, ETC.

Ala., Decatur.—Dr. W. H. Watson contemplates erecting hospital; 2 stories; brick; 14 rooms.

Ark., Hot Springs.—Government will erect addition to ward building No. 6 at Army and Navy General Hospital; bids opened May 11.

D. C., Washington.—Garfield Memorial Hospital, Florida Ave. near Sherman Ave., has plans by Marsh & Peter, 520 13th St. N. W., Washington, for addition to building; 2 stories, 18x44 ft.; brick; Virginia pine floor; extension of present steam-heating plant; electric light; bids due May 24.

Fla., Tampa.—Board of Public Works, D. B. McKay, Chrmn., receives bids until May 18 to construct nurses' quarters at Gordon Keller Memorial Hospital; plans and specifications at office of A. L. Shaw, Archt., American National Bank- Bldg., Tampa. (Lately noted.)

Ga., Rome.—Floyd county defeated $25,000 bond issue for county's portion in erection of hospital. (Lately noted.)

La., New Orleans.—Trustees Charity Hospital of Louisiana opened bids to erect tuberculosis ward; J. A. Petty, New Orleans, low bidder; building to be 1 story; brick and concrete; Favrot & Livaudais, Archts., Title Guarantee Bldg., New Orleans. (Noted in April.)

Okla., Okeene.—Dr. H. Blender will erect hospital building; 56x60 ft.; ordinary construction; asbestos slate roof; maple floors; tile in operation-room; hot-water heat; cost $6000; R. W. Shaw, Archt., Enid, Okla.; day labor; building under construction. (Lately noted.)

Tenn., Chattanooga.—E. H. Sholar, Prest. of Trustees, receives bids until May 31 to erect 3-story-and-basement brick and reinforced concrete building for Baroness Arlanger Hospital; plans by J. D. Alsup and W. H. Sears, both of Chattanooga, and may be seen at Mr. Sears' office, 821 James Bldg. (Lately noted.)

HOTELS

Fla., St. Augustine.—Monson Hotel, Chas. E. Young, Sr., Mgr., will erect 50 additional rooms to hotel.

Ga., Savannah.—J. B. Pound, Hotel Patten, Chattanooga, postponed erection of concrete annex to Hotel Savannah; construction will probably begin next spring. (Noted in March.)

Md., Baltimore.—B. Howard Richards, Agt., is having plans prepared to remodel building for hotel and stores. (See Stores.)

Miss., Meridian.—Union Hotel will erect addition to hotel, practically doubling size.

N. C., Unaka Springs.—C. T. Bickley is reported to erect hotel.

S. C., Charleston.—Argyle Hotel Co., Jas. S. Farnum, Mgr., has plans by W. Albert Swasey, 47 W. 34th St., New York, for hotel and theater at Hasell and Meeting Sts.; 12 stories; 250 rooms; theater to seat 2000; brick, stone and steel; 134x136 ft.; standard hot water and heating system; pile foundation capped with concrete; cost $600,000; bids opened June 1. (Lately noted.)

Tenn., Chattanooga.—Signal Mountain Inn is erecting "L" to building containing 100 rooms, each with bath.

Tex., Nacogdoches.—J. B. Eaves will erect 2-story hotel.

W. Va., Beckley.—Beckley Hotel Co., Wm. MacTaggart, Prest., is having plans prepared by A. F. Wyson, Princeton, W. Va., for hotel; 51 rooms; 4 or 5 stories; let contract for excavation to Vroser & Freeman, Beckley. (Lately noted.)

MISCELLANEOUS

Ala., Mobile—Clubhouse.—Alba Fishing and Hunting Club, W. D. Bellingrath, Prest., plans to expend $10,000 to erect buildings to replace structure on Dog River.

Ala., Mobile—Market.—Orange Belt Traction Terminal Market will construct sheds and platforms at cost of $4000 for Farm-to-Table Market. Chas. G. Ibach will be in charge.

Ark., Kingsland—Restaurant.—J. E. McCoy will erect brick restaurant building.

Fla., Jacksonville — Clubhouse. — Military Service Club of Florida proposes to erect clubhouse at Black Point.

Fla., Orlando—Skating Rink.—C. A. Hovey will erect skating rink on S. Orange Ave.; 1 story; foundation to support 2 additional stories.

Ky., St. Helens—Clubhouse.—Commercial Club is reported to erect building to cost $3000.

Md., Baltimore — Dance Hall, etc. — John Wedderburn, 2310 Ruskin Ave., has plans by Owens & Sisco, Continental Bldg., Baltimore, and opens bids June 1 to erect swimming pool and dance hall at 3410 Auchentoroly Terrace; 44x18 ft.; fireproof; hardwood and concrete floors; increased boiler inside residence or new heating plant to cost approximately $300; electric and gas lights; cost $3000 without mechanical equipment.

Mo., St. Louis—Clubhouse.—Real Estate Salesmen's Assn., Clark H. Whiteside, Prest., is considering erection of clubhouse on Meremac River.

Mo., St. Louis—Greenhouse.—Missouri Botanical Garden will erect 1-story greenhouse at 2303-05 Tower Grove St.; cost $5000.

Okla., Chickasha — Clubhouse. — Chickasha Golf and Country Club, Tom Boyd, Secy., is receiving bids to erect clubhouse; plans and specifications at Mr. Boyd's office, over Kozy Theater.

S. C., Charleston—Home.—Charleston Home will expend $6670 to repair home at 63 Columbus St.

S. C., Rockton—Barn.—T. W. Ruff will erect barn; 60x82 ft.; ordinary frame construction; wood floors; hay-handling equipment, etc.; cost $2000; wants plans. (See Machinery Wanted.)

RAILWAY STATIONS, SHEDS, ETC.

Ala., Bessemer.—Alabama Railroad Com. directed Louisville & Nashville R. R., W. H. Courtenay, Ch. Engr., Louisville, Ky., and Alabama Great Southern R. R., C. Dougherty, Ch. Engr., Cincinnati, O., to begin construction of depots; brick and stone; cost about $30,000 and $25,000, respectively.

Ala., Birmingham.—American Trust and Savings Bank will expend $7000 to repair building damaged by fire.

Ky., Cecilia.—Illinois Central R. R. will not erect depot, as lately reported.

Okla., Drumright.—Gulf, Colorado & Santa Fe R. R., F. Merritt, Ch. Engr., Galveston, Tex., will erect depot.

Tenn., Memphis.—Illinois Central R. R., A. S. Baldwin, Ch. Engr., Chicago, is reported to erect car-repair sheds at cost of $200,000; concrete, steel and frame; several hundred feet long, to cover 5 parallel tracks.

Tex., Ennis.—Houston & Texas Central R. R. Co., G. S. Waid, Gen. Mgr., Houston, will remodel building for lunchroom; ordinary construction; construction by company's force. (Lately noted.)

Tex., Roby.—Roby & Northern R. R. Co. will erect depot; 30x60 ft.; stucco on metal or wooden lath; shingle, tile or composition roof; fireplaces and stoves; cost $2500 to $3000. (See Machinery Wanted.)

SCHOOLS

Ala., Georgiana.—City will erect $10,000 school to replace burned structure. Address The Mayor.

Ala., Irondale.—Town votes May 21 on $20,000 bonds to erect school; H. C. Gore, Mayor. (Lately noted.)

Ark., Blevins.—Bids received until May 20 to erect 2-story brick school at Blevins, for which $10,000 bonds were lately noted to have been sold; also until May 22 to erect 2-story brick school at Biern, Ark.; plans and specifications at office of Jas. H. Bliss, Archt., Hope, Ark.

Ark., Blytheville.—St. Peters R. C. Church will erect school and dormitory building at Ash and Division Sts.; 2 stories; 30x80 ft.; frame; asbestos roof; pine floor; address Rev. J. A. Mehan, Blytheville.

Ark., Forrest City.—School Board, W. J. Lanier, Prest., has plans by W. C. Lester, Memphis, Tenn., for high-school building; 68x114 ft.; ordinary construction; gravel roof; steam heat; electric light; cost $25,000; bids opened May 17. (Lately noted.)

Ark., Weiner.—Trustees are having plans prepared by L. M. Weathers, Memphis, Tenn., for $14,000 school.

Fla., Bartow.—Lake Alfred Special Tax School Dist. votes May 18 on $4000 bonds to erect school; C. A. Parker, Secy. Board of Public Instruction. (Lately noted.)

Fla., Clearwater.—Special Tax Dist. No. 2 voted $20,000 bonds to erect school; Dixie M. Hollis, Supt. of Public Instruction of Pinellas County. (Lately noted.)

Fla., Port Richey. — Pasco County School Board will receive bids to erect school.

Fla., Seminole. — Seminole School Dist. voted $5000 bonds to erect school; Dixie M. Hollis, Supt. of Public Instruction of Pinellas County, Clearwater, Fla. (Noted in Mch.)

Fla., Tampa.—Marshall Moore, Supt. of Schools, receives bids until June 15 to erect Oak Park School in Dist. No. 18, Hillsborough county; also at same time to erect Dobeyville School in Tampa; plans and specifications at office of A. H. Johnson, Archt., 711 Citizens' Bank Bldg., Tampa; receives bids until June 1 to construct Harlem Academy School in Dist. No. 4, Hillsborough; plans and specifications at office of Mr. Moore at the Courthouse until June 14 to erect 2 junior high schools; plans and specificaions at office of Hagy & Parslow, Archts., Tampa. (Lately noted.)

Fla., Umatilla.—School Board, W. T. Kennedy, Secy., Tavares, Fla., opens bids May 24 to erect school building; W. H. Carr, Archt., Leesburg, Fla. (Noted in April.)

Fla., Vero.—Board of Public Instruction of St. Lucie County, Fort Pierce, Fla., receives bids to erect school southwest of Vero; plans and specifications at office of J. W. Hodge, Supt., Fort Pierce.

Fla., St. Augustine.—Florida School for Deaf and Blind is having plans prepared by W. A. Edwards, Candler Bldg., Atlanta, for educational and hospital buildings on San Marco Ave.; fireproof; tile roof; cost $25,000 to $30,000; address Archt. (Lately noted.)

Fla., Winter Haven.—School Board is having plans prepared by W. H. Carr, Leesburg, Fla., for high school; 2 stories and basement; about 157x143 ft.; 24 rooms; ordinary brick construction; asbestos roof with asphalt binder; cement floor in basement; double wood floors first and second stories; electric lights; cost $30,000; steam heat to cost about $2000; contract to be let in June, date not announced. Address C. A. Parker, Bartow, Fla. (Lately noted.)

Ga., Albany.—City, H. A. Tarver, Mayor, is having plans prepared by J. J. Baldwin, Anderson, S. C., for grammar school building; 9 classrooms, restrooms, superintendent's office and library, etc.; Tudor Gothic architecture; press brick; stone and terra-cotta trimmings; composition roof; steam blast system of heat; cost $40,000. (Lately noted.)

Ga., Atlanta.—Emory College will erect dormitory at cost of $50,000; accommodations for about 150 students.

Ga., Cedartown.—City selected J. J. Baldwin, Anderson, S. C., as architect for high school, for which $50,000 bonds were lately noted voted; 8 classrooms, superintendent's office and library, chemical and physical laboratories, business dept., domestic science dept., etc.; tapestry brick and terra-cotta trimmings; composition roof; steam blast system of heat; cost $35,000.

Ga., Donaldsonville.—Nazarene College will complete building on which construction was begun; all inside work to be completed, including installation of heating plant; P. E. Dennis, Archt., American National Bank Bldg., Macon.

Ga., East Point.—Board of Education ordered election for June 29 on $30,000 bonds to erect school.

Ga., Hawkinsville. — City, G. W. Jordan, Mayor, has plans by Chas. Edw. Choate, 11 The Prado, Atlanta, for addition to and remodeling of high school; 8 rooms; ordinary construction; slate roof; joist floor; low-pressure steam heat; electric light; will install furniture in old and new parts, including laboratory tables, blackboards, program clock, etc.; cost about $10,000; bids opened May 21. Address Archt. or H. D. Knowles, Secy. School Board, Hawkinsville.

Ga., Winder.—City, Dr. J. T. Wages, Chrmn. Finance Comm. of City Council, is having plans prepared by J. J. Baldwin, Anderson, S. C., for grammar school building; 12 classrooms, superintendent's office and library, etc.; steam blast system of heat; composition roof; press brick; stone and terra-cotta trimmings; cost $30,000 to $35,000; bids opened about June 1; reported to vote May 25 on $13,000 bonds.

Ky., Hindman.—Prof. Geo. A. Clarke will let contract within 2 weeks to rebuild structure for Hindman Normal School; cost $12,000. (Lately noted burned.)

Ky., Lexington. — Board of Education is having plans prepared by Frankel & Anderson, Lexington, for negro school in Forest Hill section; 8 rooms; ordinary construction; cost $12,000. Address Archts.

Ky., Louisville.—City has plans by J. E. Henry, Louisville, for Wm. R. Belknap School at Sils and Wibben Aves.; 400,000 cu. ft.; fireproof; composition roof, J.-M. or Carey roof; concrete and tile floor; $1200 split system heating; city light; cost about $67,500; bids opened June 4 for erection, installation of heating and ventilating plant and furnishing finish hardware for same. (Lately noted.)

Ky., Stamping Ground.—City voted $20,000 bonds for schools. Address The Mayor.

La., Bastrop.—School Dist. voted $55,000 bonds for school; about 150x130 ft.; semi-fireproof; Barrett roof; steam heat; town lighting; cost without equipment $45,000; Col. W. L. Stevens, Archt., New Orleans. (Noted in April.)

La., New Orleans.—Rev. Father Lorento will rebuild lately-burned school and chapel.

La., Scanlon.—School Board is having plans prepared by Nelson & Torre, Hennen Bldg., New Orleans, to erect school building; 4 classrooms and auditorium; shingle roof; yellow pine floors; National jacketed stoves; cost $4000; contract let June 7. Address A. C. Lewis, Amite, La. (Lately noted.)

Miss., Amory.—Trustees have plans by Bem Price, 518-19 Empire Bldg., Birmingham, Ala., to erect high-school building; 3 stories; brick; mill construction; Barrett Specification roof; direct steam heat; cost about $25,000; bids opened about June 5; owners will do wiring and plumbing on day basis. (Noted in April.)

Miss., Clarksdale.—City will vote on $150,000 bonds to erect school, etc. Address The Mayor. (See Water-works.)

Miss., Hattiesburg.—Eatonville Consolidated School Dist. Trustees will erect building to replace burned structure; receive bids until June 7; R. E. Lee, Archt., Hattiesburg; will issue $5000 bonds.

Miss., Laurel.—City is reported to let contract May 24 to erect school to cost about $22,000; completion by Sept. 15. Address The Mayor. (Previously noted to issue $60,000 bonds for school, etc.)

Miss., Noxapater.—Trustees Agrl. High School open bids about June 1 to erect dormitory; 26 rooms, 12x14 ft.; cost $10,000; Overstreet & Spencer, Archts., Jackson, Miss. Address Geo. M. Turner, Noxapater. (Noted in April.)

Mo., Joplin.—City did not vote bond issue for school building as lately reported.

Mo., Webb City.—School Board, A. G. Young, Secy., will erect 4-room addition to West Side school building; mill construction; shingle roof; pine floors; cost $9000; other details not determined. Address Mr. Young. (Lately noted.)

N. C., Elizabeth City.—City votes May 25 on $15,000 bonds, of which $11,000 will be for paying debt and $4000 for fire escapes on primary building. Address The Mayor.

N. C., Greenville.—Town votes June 7 on $30,000 bonds to erect schools; J. B. James, Mayor.

N. C., Greensboro.—City, T. J. Murphy, Mayor, will consider issuing $50,000 bonds to erect additional schools.

N. C., Mt. Gilead.—Mt. Gilead School Dist. voted $20,000 bonds to erect school. Address Dist. School Trustees. (Lately noted.)

N. C., Mount Olive.—Graded School Dist. voted $6000 bonds to complete and install heating equipment in school buildings; Albert S. Grady, Secy. School Board, Mount Olive. (Lately noted.)

N. C., Norlina.—Special Tax Dist. votes June 15 on $12,500 bonds to erect fireproof school building; H. M. Terrell, Secy., Norlina. (Lately noted.)

N. C., Raleigh.—Bragtown School Dist. voted tax and will erect school. Address Dist. School Trustees.

Okla., Pryor.—City voted $12,000 bonds to erect high school; steam heat; cost $10,000. Address Board of Education, Pryor; lately noted. (See Machinery Wanted.)

Okla., Supply.—Supply School Dist. is reported to have voted $10,000 bonds for schools. Address Dist. School Trustees.

Okla., Tulsa.—Board of Education, H. O. McClure, Prest., will repair and remodel Sequoyah School; J. P. Curtain, Archt., Room 14, Hayward Bldg., Tulsa; bids received until May 19.

S. C., Orangeburg.—School Dist. No. 26 votes May 25 on $30,000 bonds to erect high school. Address Dist. School Trustees.

S. C., Oswego.—Dist. No. 16 will erect school building; 64x40 ft.; 3 rooms; mill and brick construction; wood floors; heaters; cost $3000; will sell bonds. Address F. W. Andrews, Oswego.

Tenn., Briceville.—City will erect high school at cost of about $10,000; reservoir to be constructed on top of nearby ridge, pipe running to school and probably some residences. Address The Mayor.

Tenn., Carthage.—School Board has plans by C. K. Colley, Nashville, to erect school building; 10 rooms; fireproof; hardwood floors; cost $20,000; steam heat, $1500; bids opened June 1. Address A. C. Read, Mayor, or Mr. Colley, 33-40 Life & Casualty Bldg., Nashville, Tenn. (Noted in April.)

Tenn., Chattanooga.—L. G. Walker, Chrmn. Board of Trustees of Bonny Oaks Industrial School, receives bids until May 29 to erect girls' dormitory at Bonny Oaks; plans and specifications at office of Chas. E. Bearden, Archt., Chamberlain Bldg., Chattanooga. (Previously noted.)

Tenn., Cleveland.—Bradley county is having plans prepared by Clarence T. Jones, Chattanooga, for $25,000 high school; 8 classrooms and auditorium. (Lately noted.)

Tenn., Clinton.—Prof. A. C. Duggins, Supt. Schools, receives bids until May 15 to erect 8 buildings in Anderson county; 4 rooms each; brick veneer; gravel roof; wood floor; hot-air heat; cost about $40,000; Albert Bauman, Archt., Knoxville. (Lately noted.)

Tenn., Grand Junction.—City, F. H. McClellan, Recorder, will erect 2-story brick school; contract let May 18.

Tenn., Memphis.—Southern and National Baptist Convention selected Memphis as location for proposed theological seminary for negroes; construction to begin not later than Oct. 15; H. C. Shepherd, Chrmn. of Com., Memphis.

Tenn., Morristown.—City plans to erect high school. Address The Mayor.

Tenn., Morristown.—Morristown Normal and Industrial College is considering erecting boys' dormitory to cost $25,000 to $35,000.

Tex., Austin.—City, A. P. Woolridge, Mayor, will vote June 9 on $250,000 bonds for school buildings; previously noted. (See Road and Street Work.)

Tex., Ballinger.—Ballinger School Dist. votes May 20 on $80,000 bonds for schools. Address Dist. School Trustees.

Tex., Beaumont.—South Park Independent School Dist. voted $50,000 bonds for school improvements. Address Dist. School Trus.

Tex., El Paso.—City voted $500,000 bonds to erect schools. Address The Mayor. (Lately noted.)

Tex., Godley.—J. H. McBride, Secy. School Board, receives bids until May 31 to erect 3-story brick and concrete school; plans and specifications at office of Mr. McBride, Godley, and T. J. Galbraith, Archt., 718 Slaughter Bldg., Dallas.

Tex., Marlin.—City, E. W. Bounds, Mayor, votes June 15 on $60,000 bonds for high school. (Lately noted to vote on $75,000 bonds for schools.)

Tex., Petrolia.—City is having plans prepared by Field & Clarkson, Wichita Falls, Tex., for addition to school.

Tex., Phelps.—Phelps School Dist. sold bonds and will erect school. Address Dist. School Trustees.

Tex., Rusk.—Rusk Academy has plans by S. W. Ray, Jacksonville, Tex., for girls' dormitory; 45x132 ft.; ordinary construction; tar and gravel roof; wood deadened floor; $2000 steam heat; cost about $20,000; bids opened May 20. Address Rev. Walter T. Davis, Rusk. (Lately noted.)

Tex., Rio Grande.—City voted $15,000 bonds to erect school. Address The Mayor.

Tex., San Antonio.—Bexar county has plans by Seutter, Adams & Adams, Gibbs Bldg., San Antonio, for school 12 mi. from city; about 80x60 ft.; 2 stories; fireproof, reinforced concrete, brick and tile; gravel roof; cost about $28,000; bids opened May 21 (extended time); address Van H. Howard, County Auditor, Courthouse, San Antonio. (Noted in Feb.)

Tex., Texarkana.—Liberty School Dist. No. 12 voted $10,000 bonds to erect brick high school. Address Dist. School Trustees.

Tex., Yorktown.—Yorktown Ind. School Dist. votes on $10,000 bonds to erect 3 additional rooms to school; J. H. Koehler, Prest. of Trustees.

Tex., Wharton.—Wharton Ind. School Dist. defeated bond issue for schools. (Lately noted.)

Va., Buchanan.—School Board plans to erect high school; Cary Breckenridge, Supt. of Schools, Fincastle, Va.

Va., Norfolk.—School Board requested City Council for $18,000 appropriation to enlarge Maury High School to accommodate 300; Neff & Thompson, Archts., Norfolk.

Va., South Boston.—Dist. School Board will issue $37,000 bonds to liquidate $20,000 indebtedness and $17,000 for addition to high school.

W. Va., Green Bank.—Board of Education of Green Bank Dist., J. W. Goodsell, Prest., plans to levy tax to erect high school between Arborvale and Green Bank; cost, including equipment, etc., $29,500.

W. Va., Malden.—Malden School Dist. voted levy to erect high school to cost about $7000; J. E. White, Prest. Board of Education. (Lately noted.)

W. Va., Clarksburg.—Miss Virginia Kennedy of Springfield School for Girls has plans by C. D. Cooley Co., Century Bldg., Pittsburgh, Pa., for 3-story dormitory 121x37 ft. and wing 70x37 ft.; ordinary construction; tile roof; wood floors; cost about $40,000; steam heat, direct radiation, $4200; excavation about June 1; Archts. will take sub-bids.

W. Va., Salem.—Salem Ind. School Dist. votes May 25 on $60,000 bonds to erect high school. Address Dist. School Trustees. (Lately noted.)

W. Va., St. Marys.—County Commrs. rescinded ordinance calling bond election for schools. (Lately noted.)

STORES

Ala., Birmingham.—C. O. Lock will expend $4480 to repair 2-story brick building at 2300 Highland Ave.

Ark., Argenta.—Justin Matthews, Little Rock, will rebuild portion of Matthews Block at Main and 2d Sts., occupied by stores, office and apartments, and noted damaged by fire at loss of $70,000; several buildings with distinct fronts and separated by fire walls.

Ark., Conway.—Cole & Co. will rebuild 2 stores occupied by H. Rephan and W. W. Westmoreland and noted damaged by fire at loss of $10,000.

Ala., Gadsden.—Gulf States Steel Co. will rebuild commissary noted damaged by fire at loss of $20,000 to $25,000.

Ala., Lanette.—Jordan & Crouch will erect brick store building.

Ark., Harrison.—Walters Dry Goods Co. will erect store; 30x140 ft.; cost about $8000; plans not fully decided; construction will probably begin July 1. (Lately noted.)

Ark., Kingsland.—J. L. Sneed will erect store building; brick.

Ark., Lepanto.—Macon Bros. have plans by L. M. Weathers, Memphis, Tenn., for block of 3 stores.

D. C., Washington.—Spieden & Spieden, 1403 New York Ave., Washington, prepared tentative plans for store and office building in northwest section; 35.6x95.1 ft.; 2 stories; brick, steel beams; slag roof; maple floor; hot-water heat; gas and electric light; concrete sidewalk, probably vault lights; plate-glass show windows; skylight; plans ready abount June 1; location and owner's name withheld.

Fla., Jacksonville.—James Halley will erect 2-story brick building on W. 8th St.; cost $4000.

Ga., Atlanta.—Dr. Joe Jacobs, Atlanta, is reported to resume construction of building at Peachtree and Roswell Rds. previously started; 2 stories with basement; pressed brick.

Ga., Decatur.—Hudson Williams will erect building to contain 2 stores; 1 story; pressed brick front; tile floor in 1 store; cost about $3500; S. D. Trowbridge, Archt., 522 Grant Bldg., Atlanta, will let contract.

Ga., Gainesville.—Felix Jackson plans to erect store and office building. (See Bank and Office.)

Ga., Gainesville.—Dr. E. P. Ham and estate of M. M. Ham are reported to have let contract to E. L. Prater, Gainesville, to erect additional story to building occupied by Pruitt-Barrett Hardware Co.; brick; 50x100 ft.; electric elevator; cost about $4000.

Ky., Lawrenceburg.—W. A. Bottom has plans by Leo L. Oberwarth, Frankfort, Ky., for building at Main and Court Sts. for 3 stores; 60x102 ft.; ordinary construction; tin roof; concrete and frame floor; electric light; cost about $7500. (See Machinery Wanted.)

Ky., Hodgenville.—C. N. McGill has plans by John Tucker, Hodgenville, for store and dwelling on Wain St.; store 36x105 ft.; dwelling 32x49 ft.; semi-fireproof; metal roof; wood floor on steel beams; heating undecided; electric light; $100 elevator; cost $7000; bids opened in near future; address owner.

Md., Baltimore.—B. Howard Richards, Equitable Bldg., agent for owners, is having plans prepared by Smith & May, Calvert Bldg., to remodel building at N. W. Cor. Howard and Franklin Sts. for store and hotel; portion fireproof; plans out for bids this week. (Previously noted.)

Md., Baltimore.—Israel Levine has plans by Callis & Callis, 2055 Kennedy Ave., Baltimore, for addition to store and dwelling at 1129 E. Baltimore St.; portion 3 stories, 25x39.9 ft.; portion one-half story, 17.6x31 ft.; tin roof; steam heat; cost $4000; construction by owner.

Md., Baltimore.—J. Marshall Thomas is having tentative plans prepared by Theo. W. Pietsch, 1210 American Bldg., Baltimore, to remodel dwelling at 518 N. Charles St. for business purposes.

Miss., Schlater.—Schlater Bros. are having plans prepared by G. C. Mitchell for building to replace burned structure.

Miss., Schlater.—E. E. Jameson is having plans prepared by G. C. Mitchell for store building to replace burned structure.

Mo., St. Louis.—Guarlford Realty & Investment Co., Rich. A. Bullock, Prest., will erect stores and apartments. (See Apartment-Houses.)

N. C., Grover.—J. G. White will erect store building; 25x50 ft.; 1 story; brick; glass front. (See Machinery Wanted.)

S. C. Gaffney.—Dr. V. H. Lipscomb will probably soon let contract to erect building.

S. C., Gaffney.—T. H. Westrope will soon let contract, it is reported, to erect business building.

N. C., Mocksville.—Martin & Anderson will erect store building; 42x100 ft.; ordinary construction; metal roof; pine floor; cost $6000; other details not determined.

S. C., Florence.—Gate City Supply & Warehouse Co. will rebuild structure lately damaged by fire at loss of $6000; details not complete.

Tenn., Tellico Plains.—V. F. Wall & Co. have plans by Bob Hunt, Telico Plains, for store; 36x100 ft.; brick; composition and gravel roof; wood floor; $75 concrete sidewalk; cost $3000; construction begun. (Lately noted.)

Tenn., Union City.—W. C. Morris will erect building on Washington Ave. for store and theater; 2 stores, theater in rear; 50x150 ft.; ordinary construction; Carey roofing; concrete floor; cost about $6000; architect and contractor not selected; construction to begin about Sept. 1. (See Machinery Wanted.)

Tex., El Paso.—Jolly & Morris have plans by O. H. Thorman, 416 Roberts Banner Bldg., El Paso, for store and apartment building at 112-14-16-20 S. Stanton St.; fireproof; composition roof; heating and lighting separate; bids opened soon. (Lately noted.)

Tex., Fort Worth.—Dr. C. F. Hayes and L. B. Clark are reported to erect store and office building; 2 stories; brick.

Tex., Houston.—R. J. Levy will expend $3349 to remodel building on Austin St.

Tex., Roby.—W. J. Langham, Rotan, Tex., will erect building; reinforced concrete; cost about $5000.

Tex., Waco.—Geo. V. Rotan will erect business building at 6th and Austin Sts.; 55x100 ft.; fireproof; gravel roof; cement and tile floor; steam heat; electric light; Bruner vault lights; cost $30,000; Sanguinette & Staats, Fort Worth, and Ross & Cason, Waco, Associated Archts.; bids opened May 20. Address Archts. (Lately noted.)

Va., City Point.—F. M. Seneca is reported to erect business and bank building to replace structure noted damaged by fire. (See Bank and Office.)

Va., City Point.—Benjamin Jacobs will rebuild structure at Hopewell damaged by fire.

Va., Honaker.—Dr. J. H. Lockhart will erect 2-story brick building for bank or stores; 30x44 ft.; metal roof; oak floors; electric lighting; cost $4000 to $5000; plans and construction by G. D. Fletcher, Honaker. (See Machinery Wanted.)

Va., Lynchburg.—R. G. Robertson will erect 2 stores at 1213 and 1215 Commerce St.; 2 stories and basement; 85x70 ft.; brick; metal, tin or slag roof; electric lighting; no heating; hand elevator in both; cost $7500; day labor. (Lately noted.)

Va., Newport News.—J. Reyner & Son, Inc., will erect auxiliary building to store at 25th St. and Washington Ave.; brick.

Va., Norfolk.—Geo. T. Twohy has plans by Neff & Thompson, Norfolk, for 2 stores; 1 on College Pl.; 51x75 ft.; cost $4000; 1 on Washington St.; 25x60 ft.; cost $2000; both ordinary construction; Barrett Specification roof; wood and concrete floor; concrete sidewalk; bids opened May 18.

Va., Roanoke.—Goldberg & Masinter will expend $3250 to repair storehouse on Salem Ave.

Va., Roanoke.—J. A. and Jos. Glover will erect 2-story brick store on Salem Ave. S. E.; cost $8000; 25x87.6 ft.; ordinary construction; wood floors; gas and electric lighting; H. M. Miller, Archt., Roanoke; C. C. Shockey, Contr., Roanoke.

W. Va., Huntington.—C. W. Cammack will erect store and apartment-house; brick.

W. Va., Parkersburg.—I. N. Farnsworth, 6th St., will erect store building at 25th St. and Murdoch Ave.

THEATERS

Ark., Little Rock.—Mrs. Madeline C. Davis, owner of Crescent Theater (C. E. Ford and B. H. Shipp, Mgrs.), will expend $5000 for improvements to burned theater at 118 W. 2d St.; will lower entrance, incline floor, refurnish, provide additional exits, lobby, etc.

N. C., Asheville.—L. Blomberg will expend $800 to remodel building at Patton and Lexington Aves. for moving-picture theater.

S. C., Charleston.—Argyle Hotel Co., Jas. S. Farnum, Mgr., opens bids June 1 to erect theater and hotel. (See Hotels.)

Tex., Beaumont.—Lynn Gilbert and Clyde Blanchette will erect motion-picture and vaudeville theater in 500 block Pearl St.; 60x140 ft.; fireproof; city light; details undecided; cost about $30,000; architect not selected; address Mr. Blanchette. (Lately noted.)

WAREHOUSES

Ala., Coden.—Coden Growers & Shippers' Assn. will erect warehouse.

Ark., Kingsland.—E. R. Buster will erect brick warehouse.

Ark., Kingsland.—S. R. Donathan will erect brick store building.

Ga., West Point.—West Point Mfg. Co. will build 450x100 ft. cotton warehouse; slow-burning mill construction; J. E. Sirrine, Archt.-Engr., Greenville, S. C.

Mo., Kansas City.—Monarch Vinegar Works has plans by The Estimating Co., 505 Finance Bldg., Kansas City, for warehouse; 50x76 ft.; 1-story addition; ordinary construction; tar and gravel roof; wood floors; date of letting contract not set. (Lately noted.)

N. C., Washington.—Shelburn-Baughman Tobacco Co. is erecting tobacco warehouse.

Okla., Frederick.—Chickasha Cotton Oil Co., Chickasha, Okla., will erect hullhouse. (See Okla., Chickasha.)

Okla., Chickasha.—Chickasha Cotton Oil Co. will erect cottonseed house at Chickasha and hullhouse at Frederick; former, 76x350 ft.; cost $10,000; latter, 50x100 ft.; cost $3500; both mill construction; galvanized-iron roof; wood and cement floors; electric lighting; under construction. (Chickasha building lately noted.)

Va., Norfolk.—J. D. Gordon estate will erect 1-story brick storage-house at Cove and Canal Sts.; cost $5000.

Va., Suffolk.—Holland-Lee Storage Warehouse Co., A. T. Holland, Prest., will erect several warehouses to replace plant lately noted damaged by fire at loss of $100,000; capacity 75,000 bags.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Fla., Miami.—Mr. Perry let contract to W. E. Martin, Miami, to erect 2-story store and apartment building at Ave. C and 6th St.; cost $5000.

Fla., Tampa.—Mrs. Sallie B. Gebbie let contract to G. W. Butterworth & Co., Tampa, to erect apartment-house; 2 stories; frame; cost $4250.

Ga., Atlanta.—S. D. Mullins has plans by and let contract to Mackle Construction Co., Atlanta, to erect apartment-house; 2 stories; ordinary construction; tar and gravel roof; wood floors; steam heat; electric lighting; cost $7500. (Lately noted.)

Ga., Savannah.—H. R. Lokey is reported to have let contract to Olaf Otto, Savannah, to erect apartment-house at Whitaker St. and Charlton La.; brick; concrete balconies; 6 suites.

Ga., Savannah.—F. M. Oliver let contract to R. W. Wimbish, Savannah, to erect 6 brick apartments at Bull and 36th Sts.; H. Wallin, Archt., Savannah.

Md., Baltimore. — Boulevard Apartment-House Co., Knickerbocker Bldg., has plans by Clyde N. Friz, 1523 Munsey Bldg., Baltimore, for addition to apartment-house at 33d and St. Paul Sts.; 3 stories; 69x92 ft.; brick; tile roof; hot-water heat; electric light; cost about $30,000; owner will supervise building and let subcontracts; let building contract to J. Henry Smith, 1640 Hanover St., Baltimore; cost about $26,000. (Lately noted.)

Mo., St. Louis.—J. Maisak let contract to F. Honekamp, St. Louis, to erect 2-story tenement-house at 4439 San Francisco St.; cost $4200.

Mo., St. Louis.—Daisy Kenefick let contract to Bonded Building Co., St. Louis, to erect 2-story tenement-house at 4048 Lafayette St.; cost $5000.

Tenn., Memphis.—J. W. Hull let contract to W. H. Burnell, Memphis, to erect 2-story brick flat at Bellevue and Eastmoreland Aves.; 22 rooms; cost $20,000; completion by July.

Tenn., Nashville.—David F. Neilson and Thos. W. Gardner let contracts as follows to erect Louise Apartments: Foundation, Foster-Creighton Co.; brick work, Fulcher Brick Co.; lumber and mill work, Buchanan Bros.; plumbing and heating, J. M. Gallagher; painting, S. J. Ayres; carpenter work, John Taylor; all of Nashville; Hart & Gardner, Archts, Nashville. (Lately noted.)

Va., Norfolk.—J. Davis Reed, Portsmouth, Va., let contract to erect store and apartment-house. (See Stores.)

ASSOCIATION AND FRATERNAL

Ky., Lexington.—A. F. and A. M. let contract J. T. Jackson Lumber Co., Lexington, to complete Masonic Temple, for which foundation is laid; 50x96 ft.; 4 stories; fireproof; ordinary construction; Barrett Specification roof; wood floors; steam heat, $2000; cost $25,000; Frank L. Smith, Archt., Lexington. (Lately noted.)

Okla., Cushing.—Cushing Masonic Building Assn. let contract at $8968 to E. F. Gross, Cushing, to erect Masonic lodge; 2 stories; 45x100 ft.; concrete foundation; brick; white stone trimmings; asbestos roof; yellow pine interior finish; electric wiring; skylights; plate glass; W. N. Meredith, Archt., Cushing; J. D. Taylor, J. E. Burt, S. P. Alles, Building Comm., all of Cushing. (Lately noted.)

W. Va., Morgantown.—Union Lodge No. 4, A. F. and A. M., let contract at $23,524 to James A. Johnson, Uniontown, Pa., to erect Masonic Temple, exclusive of heating, wiring and plumbing; 3 stories; brick and white glazed terra-cotta; 41x100 ft.; finished basement; John H. Hartman, Archt., Uniontown, Pa. (Lately noted.)

BANK AND OFFICE

Miss., Clarksdale.—E. P. Peacock let contract to erect store and office building. (See Stores.)

Mo., Kansas City.—G. R. Chambers let contract to erect office and store building. (See Stores.)

S. C., Spartanburg.—Bank of Spartanburg let contract to P. J. Olin Smith & Son, Spartanburg, to remodel building at Main and Wall Sts.; 23x96 ft.; 3 stories and basement; ordinary construction; metal roof; wood floors; cost $6000; low-pressure steam heat, $1500; J. Perry Green, Archt., Atlanta; install marble fixtures, tile floors, prism lights in pavement, new heating system and 3 vaults; lately noted. (See Machinery Wanted.)

Tex., Dallas.—J. Ashford Hughes let contract to Hedrick Construction Co. to remodel building for offices; ordinary construction; gravel roof; tile floors; steam heat; cost about $5000; Lank & Witchell, Archts., Dallas; completed in 30 days. (Lately noted under Stores.)

Tex., Dallas.—Federal Reserve Bank is reported to have let contract to H. J. Curtis, Dallas, to remodel Linz Bldg. at Martin and Commerce Sts.; fireproof; install vault measuring 10x25 ft. inside, U. S. standard burglar-proof steel, doors of steel 10 in. thick, 20 steel money closets, solid concrete foundation, protected by fireproof walls; Hubbell & Greene, Archts., Dallas; vault planned by Gov. R. L. Van Zandt and Mr. Greene, Archt. (Lately noted.)

Tex., Mesquite.—Guaranty State Bank let contract to Alva Simmons, Mesquite, to erect bank and store building; 50x80 ft.; banking quarters 25x80 ft.; store 25x80 ft.; ordinary construction; gravel roof; concrete floor; electric light; cost $5000; J. F. Burtwell, Archt., Dallas; construction begun. (Lately noted.)

Tex., Vernon.—Waggoner National Bank let contract to Whalen & Wood, Sherman, Tex., to erect bank building, and to Havis-ton Metal & Plumbing Co., Vernon, for mechanical equipment; 2 stories; terra-cotta front; 25x100 ft.; Field & Clarkson, Archts., Wichita Falls. (Lately noted.)

Tex., Waxahachie.—Mrs. Johnnie Skinner, Dallas, let contract to W. W. Walston, Waxahachie, to erect 2-story brick and stone building to be occupied by Guaranty State Bank. (Lately noted.)

Va., Honaker.—Dr. J. H. Lockhart let contract to erect building for bank or store room. (See Stores.)

CHURCHES

Md., Princess Anne.—Antioch M. E. Church let contract to Wm. P. Pusey and Lawrence L. Pusey, Princess Anne, to erect building; Beaver Dam marble; auditorium to seat 300, Sunday-school 200 and social room 200; steam heat; electric lights; cost $25,000. (Lately noted.)

S. C., Florence.—Catholic Mission congregation let contract to T. Baker Haynsworth, Florence, to erect $30,000 building; D. C. Barbot, Archt., Charleston, S. C.; brick furnished by I. R. Ryttenberg, Sumter, S. C.

Va., Lynchburg.—Bethesda Presbyterian Church let contract to Smoot & Sheehan, Lynchburg, to erect building at 2409 Poplar St.; 35x49 ft., with Sunday-school room 35x40 ft.; ordinary construction; prepared slate roof; wood floor; hot-air heat; electric fixtures cost $4594; Heard & Cardwell, Archts., Lynchburg.

CITY AND COUNTY

Fla., Arcadia—Jail.—City is reported to have let contract to erect jail; Peter McDermond, City Clerk.

Fla., Fort Meyers—Prison.—City let contract to F. E. Trapp, Fort Meyers, to erect prison on Anderson Ave.; 28x22 ft.; reinforced concrete; gravel and concrete roof; concrete floor; cost $1360; N. D. Mitchell, Archt.; address Contr. (Lately noted.)

Ky., Louisville — Engine-house. — City let contract to Alt Building Co., Louisville, to erect fire-engine house at Bardstown Rd. and Maryland Ave.; 36x112 ft.; ordinary construction; tile and tin roof; wood and composition floor; brick sidewalks; cost $13,000, including plumbing, etc.; let contract for including plumbing, etc.; W. J. O'Sullivan, Archt., Louisville; let contract for electrical work to Bland Electric Co., Louisville, at $510; bids for plumbing opened May 17. (Lately noted.)

La., New Orleans—Market.—City let contract at $3130 to M. Chessi Co. for material and installation of vestibules in St. Bernard, Washington, 9th St. and Lebreton markets.

S. C., Greenville — Jail. — Jail Comm. let contract to Jamison & Morris, Greenville, to erect jail; brick; 56x83 ft.; concrete floors; steel cells; fireproof throughout; 2 stories, with basement; tile roof; 2-story residence for jailer in front; cost $30,000; J. T. Lawrence, Archt., Greenville. (Lately noted.)

Tex., Jourdanton—Jail. — Commrs.' Court let contract to Southern Structural Steel Co., San Antonio, Tex., to erect $20,000 jail.

DWELLINGS

Ark., Little Rock.—L. D. Murphy, 623 E. 13th St., has contract to erect dwelling at 2410 Broadway; 2 stories, 43x70 ft.; frame; green tile roof; hardwood floor on wood joists; heating and lighting reserved; cost $8000; Chas. L. Thompson, Archt., 504 Southern Bldg., Little Rock; lately noted. (See Machinery Wanted.)

D. C., Washington.—Florence E. Achterkuchen let contract to Wm. A. Boss, 472 Louisiana Ave. N. W., Washington, to erect 6 dwellings at 1601-11 Rosedale St.; 13.4x29 ft.; brick; tin roof; cost $6500.

D. C., Washington.—Henry G. Ferguson has plans by Merrill T. Vaughn, 2925 23d St. N. E., Washington, and let contract to R. W. Bolling and Wm. Todd, 1406 G St. N. W., Washington, to erect dwelling at 2330 California St.; 35x49 ft.; 3 stories; brick; slate roof; hot-water heat; electric light; cost $15,000.

D. C., Washington.—John B. Hurley let contract to Edw. McAleer, 828 Kennedy St. N. W., Washington, to erect 3 dwellings at 218-22 14th St. N. E.; 16.4x31.6 ft.; brick; tin roof; hot-water heat; electric light; cost $10,000; N. R. Grimm, Archt., Bond Bldg., Washington.

Fla., Bradentown.—Capt. D. McLewis has plans by and let contract to T. W. Hullinger & Son, 3 Clifton Bldg., Bradentown, to erect dwelling and garage on River Ter.; dwelling 44x35 ft.; garage 20x24 ft.; composition shingle roof; wood and tile floor; cost $4500; construction begun. (Lately noted.)

Fla., Crystal Springs.—Misses Elva Holford, Katherine Sanderson and others, Green Lake, Wis., have plans by and let contract to Stephen C. Singleton, Jr., Crystal Springs, to erect building for winter camp; box construction; porches, 4 sides screened; composition roof; wood floor; 2 fireplaces; cost $1500. (See Machinery Wanted.)

Fla., Palm Beach.—Howard C. McKenty, Detroit, Mich., let contract to H. B. and H. R. Corwin, 410 Iris St., W. Palm Beach, to erect dwelling in Royal Park; 36x42 ft.; ordinary construction; composition shingle roof; double wood joist floor; electric light; cost $4000; H. R. Corwin, Archt., who may be addressed; construction begun.

Fla., Sanford.—Judge Herring let contract to G. B. Pope, Sanford, to erect residence on N. French Ave.; 2 stories; 8 rooms; ordinary construction; shingle roof; double floors, felt packed; gas heat, $85; electric light; cost $3000; construction begun.

Fla., St. Augustine.—Mrs. T. A. Pacetti let contract to E. J. Masters, St. Augustine, to erect residence on N. Charlotte St. cost $3500.

Fla., St. Augustine.—Chas. Segui let contract to Steve Pacetti, St. Augustine, to erect residence in North City; cost $3500. (Lately noted.)

Ga., Atlanta.—Mrs. S. E. Cowley let contract to Spinks & Butler, Atlanta, to erect three 5-room dwellings on Gordon St.; frame; shingle roof; wood floors; cost $2000 each; plans by Contrs. (Lately noted.)

Ga., Augusta.—W. L. McCreary let contract to Woodward Contracting Co., Augusta to erect 2-story residence at Henry & Fleming Sts., Northview.

Ga., Augusta.—W. M. Rowland will erect 3 residences in Bellevue Ave.; let contract to Wooward Contracting Co., Augusta.

Ga., Augusta.—Miss Mary A. Cuthbert let contract to Palmer-Spivey Co., Augusta, to erect residence on McDowell St.; cost $6000 to $7000.

Ga., Augusta.—E. A. Frank let contract to A. J. Little, Augusta, to erect residence; pebble-dash exterior; cypress shingle roof; hot-air heat; J. B. Story, Archt., Augusta.

Ga., Augusta.—Eli Mustin let contract to Daly & Hayes, Augusta, to erect $7000 residence; construction begun.

Ga., Gainesville.—Dr. Latimer Rudolph has plans by and let contract to John A. Pearce, Gainesville, to remodel residence on Green St.

Ga., Gainesville.—Mrs E. E. Dixon let contract to John A. Pearce, Gainesville, to erect residence; English style; cedar shingle roof; tile floor in breakfast room; 9 rooms and basement; cost about $8000.

Ga., Savannah.—Frank I. Barry let contract to Standard Investments Co. to erect residence at Duffy and Lincoln Sts.

Md., Athol.—Miss Ruth Johnston let contract to Wm. J. Schaub, Harlem Lane, Catonsville, Md., to erect dwelling; 30x36 ft.; ordinary frame construction; shingle roof; wood floors; fireplace and stoves; cost about $2000 without equipment; C. Milton Lutz, Archt., 602 W. 34th St., Baltimore. Address Contr.

Md., Chevy Chase.—John S. Weidman let contract to R. P. Whitty Co., Union Trust Bldg., Washington, to erect dwelling on Lenox St.; 29x36 ft.; ordinary construction; heart cedar and cypress shingle roof; frame floor; hot-water heat; electric light; John M. Donn, Archt., 1516 H St. N. W., Washington. (Lately noted.)

Miss., Greenville.—Judge Percy Bell let contract to W. H. Neal, Greenville, to erect dwelling on Washington Ave.; 54x70 ft.; ordinary construction; metal shingle roof; wood floor; cost $8000; hot-water heat, $750; electric light, $250; W. H. Parker, Archt., Greenville. (Lately noted.)

Mo., St. Louis.—C. Greunther let contract to P. Jochim, St. Louis, to erect 2-story dwelling at 5526 S. Kingshighway; cost $3000.

Mo., St. Louis.—Edw. A. Faust let contract to Ratermann Building & Contracting Co., St. Louis, to erect addition to residence at 1 Portland Pl.; fireproof; stone and concrete; living-room 20x30 ft.; cost $20,000.

N. C., Edenton.—C. N. Griffin let contract to J. A. Campbell, Edenton, to erect residence on Main St.

N. C., High Point.—Bascum Hoskins let contract to B. F. Montgomery, High Point, to erect $4000 residence.

N. C., Wilson.—J. B. Williams contracted with C. C. Rackley to erect 2-story brick-veneer bungalow.

Okla., Oklahoma City.—E. M. Lisle let contract to erect dwelling at 901 W. 20th St.; cost $3000.

S. C., Spartanburg.—Mrs. W. B. Veasey let contract to J. M. Crawford, Spartanburg, to erect residence on Mills Ave.; cost $3000.

S. C., Walterboro.—C. Gadsden Padgett, Cash. First National Bank, let contract to W. A. Stewart, Walterboro, to erect residence on Dunwoody St.; 2 stories; colonial style; 8 rooms and 2 baths; completion by July 15.

Tenn., Knoxville.—Alex. McMillan Co. let contract to Claiborne & Brooks, Knoxville, to erect 4 dwellings at 5th St. and Cumberland Ave.; 35x40 ft.; ordinary construction; asphalt shingle roof; oak and pine floor; hot-air heat; electric and gas light; cost $10,000; Chas. I. Barber & Ben McMurray, Archts., Knoxville. (Lately noted.)

Tenn., Memphis.—J. H. Davis let contract to E. B. Scott, Memphis, to erect 2-story frame residence at 995 N. Parkway; cost $4000.

Tenn., Memphis.—L. S. Vaccaro has plans by Mahan & Broadwell, Memphis, for residence on Parkway; stucco, lower portion faced with oriental brick tile; cost about $7000; Irwin & McGuire, Contrs., Memphis.

Tenn., Nashville.—A. M. Burton has plans by C. K. Colley, Nashville, for residence and let following contracts for erection: Foundation and concrete, Adamant Stone & Roofing Co.; carpenter work, H. P. Jacobs; roofing, McKay Bros. & Daugherty; painting, Chas. A. Howell; plastering and stucco, Cooper & Ferguson; electrical work, David Grewar Co.; plumbing, H. B. Jordan; tile, Jones & Hopkins Mfg. Co.; hardwood floors, Harvey H. Pride; glass and glazing, The Riddle Co.

Tex., Wichita Falls.—Mrs. S. T. Coffield let contract to J. T. Shaver, Wichita Falls, to erect 2-story 10-room residence; Evan Jones, Archt., Wichita Falls.

Va., Onley.—V. W. Phillips let contract to J. T. Roberts, Onley, to erect dwelling; 44x44 ft.; ordinary construction; shingle roof; wood floor; $791 hot-water heat; probably storage-battery plant; cost $8100; Philip B. Moses, Archt., 414 Deckson Bldg., Norfolk. Address Architect.

Va., Norfolk.—John I. Clark let contract to J. A. Turpin, Virginia-Carolina Bldg., Norfolk, to erect dwelling on Boisevain Ave.; 25x42 ft.; ordinary construction; roofing furnished by Norfolk Sheet Metal Co.; wood floor; hot-water heat; cost $4800; Wickham C. Taylor, Archt., Norfolk. (Noted in Apr.)

Va., Richmond.—Laburnum Corp. let contract to R. M. Anderson, Richmond, to erect 2 dwellings and to O. C. Peers, Richmond, to erect 1 dwelling on Confederate Ave.; 10 rooms each; slate roof; wood floor; hot-water heat; cost $12,000; construction begun.

W. Va., Parkersburg.—Jas. W. Dils let contract to Burwell & Snodgrass, Union Trust Bldg., Parkersburg, to erect dwelling on Riverside Ter.; shingle roof; cost $7000; address Contractor; lately noted. (See Machinery Wanted.)

GOVERNMENT AND STATE

Ga., Savannah — Postoffice.—Treasury Department, Washington, D. C., let contract to Woolard & Cunningham, Savannah, to remodel postoffice work floor in basement of postoffice building.

Ky., Louisville—Substation.—T. Greiner & Sons, Louisville, have contract to erect postal substation at 30th St. and Broadway according to plans by Arthur A. Tafel, Louisville; steel furniture with mahogany finish; to be leased to Government by owner.

Miss., Oxford—Postoffice.—Treasury Dept. let contract at $5927 to Ghrone Contracting Co., Joliet, Ill., to improve Federal building.

HOSPITALS, SANITARIUMS, ETC.

Va., Newport News.—Dr. Jos. T. Buxton let contract to E. F. Piland, 2409 Orcutt Ave., Newport News, to erect hospital on Cypress Ave.; 26x71 ft.; ordinary construction; brick walls; slag roof; wood floor; $2000 steam heat; cost $15,000; MacKee & Williams, Archts., First National Bank, Newport News. (Lately noted.)

HOTELS

Ala., Birmingham.—A. L. Fulenwider let contract to M. C. Banks, Birmingham, to erect hotel and stores at 5th Ave. and 17th St.; 100x140 ft.; mill construction; 4-ply tar and gravel roof; steam heat; electric light; cost $75,000. (Lately noted.)

Va., Petersburg. — Petersburg Investment Corp. is reported to have let contract to Ruffin & Co., Richmond, to erect hotel; 5 or 6 stories; 125 bedrooms. (Lately noted.)

MISCELLANEOUS

Tenn., Knoxville — Library. — Lawson-McGhee Library, Col. L. D. Tyson, Chrmn. of Comm., let contract to erect library at Market and Commerce Sts. to Thomas & Turner, Knoxville, at about $49,000; also let contract for plumbing to Engert-Vance Co., Knoxville; terra-cotta, Atlanta (Ga.) Terra-Cotta Co.; exterior marble, Ross & Republic Marble Co.; interior marble, Fenton Construction Co., both of Knoxville; Grant C. Miller, Chicago, and Albert B. Baumann, Archts., Knoxville. (Lately noted.)

Tex., Dallas—Stable.—Wells, Fargo & Co. Express let contract to Watson Co., Dallas, to erect stables; 100x200 ft.; 2 stories; mill construction; tar and gravel roof; first floor, concrete; second floor, wood; asphalt paving in paddock; cost $30,000; Jas. H. Humphreys, Engr. of Wells, Fargo & Co. (Lately noted.)

Tex., Waco — Orphanage. — Methodist Orphanage let contract to Bruyere & Rippey, Waco, to erect buildings to practically double capacity and include hospital, laundry, workshop and administration; cost about $40,000; Milton W. Scott, Archt., Waco.

W. Va., Wheeling—Convent.—Order of Carmelites, Caroline and Biddle Sts., Baltimore, Md., let contract to W. Beltz & Sons Co., Wheeling, to erect building near Edgington lane for Carmelite Home; estimated cost, $40,000; Fred Faris, Archt., Wheeling. (Previously noted.)

RAILWAY STATIONS, SHEDS, ETC.

Tenn., Lewisburg.—Louisville & Nashville R. R. let contract to E. G. Holladay Co., 44 Noel Block, Nashville, to erect passenger station; 40x92 ft.; fireproof; tar and gravel roof; tile and cement floor; cost $27,000. (Lately noted.)

Tex., Coleman.—Gulf, Colorado & Santa Fe R. R., F. Merritt, Ch. Engr., Galveston, Tex., is reported to have let contract to erect station; mission type; stucco finish; cost $25,000. (Lately noted.)

W. Va., Morgantown. — Buckhannon & Northern R. R., C. S. Brady, Ch. Engr., Fairmont, W. Va., let contract to Crossan Construction Co., Brownsville, Pa., to grade sites for passenger and freight stations and yard.

SCHOOLS

Ala., Livingston. — State Normal School Board, Montgomery, let contract to W. L. Coston & Co., Bessemer, Ala., to erect dormitory; 132x164 ft.; mill construction; composition pitch and gravel roof; yellow-pine flooring; steam heat; electric lighting; hand-power elevator; cost $35,000; Frank Lockwood, Archt., Montgomery. Address contractors. (Lately noted.)

Ala., University.—University of Alabama let contract to erect gymnasium; 66x173 ft.; front portico 90x14 ft.; gymnasium proper 66x121 ft., lighted by 18 windows and 8 skylights; approximate cost $40,000; also reported to erect concrete grandstand.

D. C., Washington.—Board of Commrs. let contract to Melton Construction Co., 1012 H St. N. W., Washington, to erect school No. 175 at Park View on Warder St. between Newton and Otis Sts.; 16 rooms; stone and brick; slag roof; electric light; cost $96,853. (Noted in April.)

Fla., Chipley.—Trustees let contract to W. C. Amos, Bonifay, Fla., to erect school; 71x93 ft.; brick and frame; composition roof; wood floor; steam heat; electric light; cost $14,800; Warren & Goin, Archts., Gainesville, Fla.; address contractor. (Noted in April.)

Fla., Fellsmere.—School Board let contract to A. F. Sanders, Fellsmere, to erect school building; 62x142 ft.; ordinary construction; tar and gravel roof; yellow pine floor; conduit system of lighting; no heating at present; concrete sidewalks; cost $30,000; lately noted. (See Machinery Wanted.)

Fla., Milton.—Santa Rosa county let contract to S. F. Fulghum & Co., Pensacola, Fla., to erect school; ordinary construction; tile roof; steam heat; electric light; cost about $26,000; Walker D. Willis, Archt., Pensacola. Address Contr. (Noted in Apr.)

Fla., Plant City.—Hillsboro County Board of Public Instruction, Tampa, Fla., let contract at $2297 to E. O. Pemberton to erect 2-story frame school in Cork Academy Dist. near Plant City. (Lately noted.)

Fla., Tampa.—Hillsboro County Board of Public Instruction let contract to Bates & Hudnall, Tampa, to erect Madison Street School; 8 rooms; 76x160 ft.; ordinary construction; Barrett specification roof; wood and concrete floors; heating, separate contract; address Board; cost $36,000; Bonfoey & Elliott, Archts., Tampa.

Fla., Tavares.—School Board let contract to Hanner Bros., Orlando, Fla., to erect school building; 60x72 ft.; mill construction; asbestos shingle and asbestos sheet roofing; double wood floors; cost $11,700; Ideal radiation heating, $780; electric lighting, $425; W. H. Carr, Archt., Leesburg, Fla. Address Contrs. (Noted in April.)

Ky., Hickman.—Fulton County Board of Education let contract to L. N. Gregory, Hickman, to erect school at Sycamore. Chapel several miles below Hickman.

La., Tioga.—Tioga School Board let contract to Edwin T. Elam, Pineville, La., to erect school; 50x100 ft. and 67x100 ft.; ordinary construction; Keasby Matison 12x12-in. asbestos slate; double floor; $1500 steam heat; $500 plumbing; cost $13,328; C. Scott Yeager, Archt., Alexandria, La. (Lately noted.)

Mo., Smithton.—School Dist. let contract to Harvey Reid, Smithton, to erect school building; 50x80 ft.; fireproof; metal roof; double wood floors; cost $9000; steam heat, $1500; W. T. Bast, Archt., Sedalia, Mo. Address D. White, Smithton. (Lately noted.)

Okla., Glen Pool.—School Board let contract to Latimer Construction Co., Tulsa, to erect school building; 64x102 ft.; ordinary construction; tile asbestos roof; reinforced concrete and wood floors; cost $25,000; steam heat, $3600; electric lighting, about $3000; A. Endacott, Archt., Kirkpatrick Bldg., Tulsa. (Previously noted.)

Okla., Tulsa.—School Board let contract to Cook & McDonald, Oklahoma City, for plumbing and ventilating grade schools at cost of $10,477; to Electric Supply Co., Tulsa, for plumbing in Horace Mann and Cherokee Heights schools; Dodge Electric Co., Tulsa, for plumbing in Osage School; Deshon & Davison, Tulsa, for plumbing Central Park and Capital Hill schools. (General contracts for these structures and architects lately noted.)

S. C., Charleston.—A. J. Riley, Charleston, has contract at $3600 to install heating plant in Crafts school, for which Charleston Engineering & Contracting Co., Charleston, has general contract. (Lately detailed.)

Tex., Gilmer.—School Board let contract to C. G. Edwards, Longview, Tex., to erect high-school building; 65x122 ft.; ordinary brick and tile construction; asbestos roof; basement floor concrete; remaining floors wood; steam heat; concrete sidewalks; cost $25,000; S. J. Blasker, Archt. Address Contr. (Lately noted.)

Tex., Refugio.—Trustees let contract to Taylor Building Co., Ft. Worth, to erect school; 56x90 ft.; 2 stories; mill construction; 3-ply asbestos roof; wood joist floor; R. L. Pierce, Archt., San Antonio; address Contr.; construction begun. (Lately noted.)

Tex., Sherman.—Carr-Burdette-Carlton College let contract to L. M. Miller Construction Co., McKinney, Tex., to erect administration building; 2 stories; brick; 50x90 ft.; composition roof; hand elevator; Sparger & Peters, Archts., Bonham, Tex. (Lately noted.)

Tex., Tivoli.—Trustees let contract to Taylor Building Co., Ft. Worth, to erect school; 2 stories; 56x90 ft.; mill construction; 3-ply asbestos roof; wood joist floor; R. L. Pierce, Archt., San Antonio. Address Contr.; construction begun. (Lately noted.)

Tex., Woodsboro.—Trustees let contract to Taylor Building Co., Ft. Worth, to erect school; 2 stories; 65x86 ft.; mill construction; 3-ply gravel roof; wood joist floor; cost $10,000; R. L. Pierce, Archt., San Antonio; address Contr.; construction begun. (Lately noted.)

Va., Norfolk.—School Board let contract to John H. Pierce, Norfolk, to erect 12-room annex to John T. West School and to American Heating & Ventilating Co., Norfolk, for heating plant for old and new buildings; Browne & Lehman, Archts., Norfolk; total cost $31,295. (Lately noted.)

N. C., West Raleigh.—Agricultural and Mechanical College let contract to Longest & Tessier Co., Greensboro, N. C., to erect dormitory; 40x80 ft.; ordinary construction; frame floor construction; slate roof; cost $20,000; steam heat, $1200; H. P. S. Keller, Archt., Raleigh. Address Contr. (Lately noted.)

Tenn., Chattanooga. — Hamilton County Board of Education let contract at $4380 and $1949, respectively, to W. V. Varner & Son, Chattanooga, to erect Miller's Grove and Shady Grove schools; at $250 to Tom Snow Heating & Roofing Co., Chattanooga, for heating system for Miller's Grove school and $310 to Mountain City Stove Co., Chattanooga, for heating Gold Hill school; at $1876.50 to Chattanooga Heating Co. for heating Soddy School; opened bids to erect Gold Point School; T. E. & W. W. McJunkin, Chattanooga, are lowest bidders at $7315 for Key James brick and $7240 for common brick; W. H. Sears, Chattanooga, is Archt. for Miller's Grove School and C. P. Jones, Chattanooga, Archt. for Gold Point building. (Lately noted.)

Tex., Gainesville.—State Board of Control let contracts to erect two 6-room bungalows at Girls' Training School Farm for superintendent and other officials; girls' department to consist of five 2-story brick buildings of 15 rooms each; E. E. McAnally, Archt., Southwestern Life Bldg., Dallas. (Lately noted.)

Tex., Sherman. — Carr-Burdette-Carlton College let contract to L. M. Miller, McKinney, Tex., to erect administration building at E. Houston; 50x90 ft.; ordinary construction; Barrett's specification roof; edge grain pine floor; electric light; cost $10,000; Sparger & Peters, Archts., Bonham, Tex. (Lately noted.)

W. Va., Grafton.—School Board let contract at $74,622 to Roche-Bruner Building Co., Cincinnati, to erect high school; at $7000 to Columbus Heating & Ventilating Co., Columbus, O., to install heating system; at $580 to American Regulator Co., Pittsburgh, Pa., for system of automatic heat regulation; D. A. Ebbinger, Columbus, plumbing; plans by Frank L. Packard, Columbus, O., call for semi-fireproof structure; brick; completion by Jan. 1. (Lately noted.)

STORES

Ala., Bessemer.—James Sullivan let contract to Crotwell Bros. Lumber Co., Bessemer, to erect 2-story brick store on 3d Ave.; approximate cost $4500.

Ala., Birmingham.—A. L. Fulenwider let contract to erect store and hotel building. (See Hotels.)

Ala., Birmingham.—Samuel B. Marks let contract to Hugger Bros., Montgomery, Ala., to erect building at 1921 2d Ave.; 25x140 ft.; 2 stories; cost $25,000; to be occupied by A. & A. Ash as jewelry store. (Messrs. Ash lately noted to erect building.)

Ark., Argenta.—Topf & Wright let contract to John Leveck, Little Rock, Ark., to erect building to replace burned structure; cost $35,000. (Previously noted.)

Fla., Miami.—Mr. Perry let contract to erect store and apartment-house. (See Apartment-houses.)

Ga., Augusta.—Woodward Contracting Co. is reported to have contract to erect 2 dwellings to cost $9000 for owner whose name is withheld.

Ga., Rays Mill.—J. S. Swindle let contract to J. J. Anderson, Rays Mill, to erect store building to replace burned structure; 30x90 ft.; brick; metal roof; wood floors. Address Mr. Swindle and J. H. Swindle, Rays Mill.

Ky., Maysville.—Roden & Martin let contract to Jeff Easton, Maysville, to erect 3-story brick building on E. 2d St.

Md., Baltimore.—David Siegel let contract to Chas. L. Stockhausen Co., National Marine Bank Bldg., Baltimore, to erect store and apartment-house at 1013-15 W. North Ave.; 3 stories; irregular; sides are, respectively, 41, 40, 52.6 and 7.1 ft.; iron-spot brick, steel frame; 5-ply slag roof; wood floor; hot-water heat; electric light. (Lately noted.)

Miss., Clarksdale.—Delta Groceries & Cotton Co. will not erect building as lately reported.

Miss., Greenwood.—Weaver Grocery Co. let contract to May & Beemon, Greenwood, to erect building; concrete; 60x200 ft.; composition roof; wood floors; cost $12,000; F. M. McGeoy, Archt.

Miss., Clarksdale.—E. P. Peacock let contract through C. O. Pfeil, Archt., Memphis, Tenn., to erect 2-story brick store and office building; cost $12,000.

Miss., Clarksdale.—King & Anderson let contract through C. O. Pfeil, Archt., Memphis, Tenn., to erect 1-story brick business building. (Lately noted.)

Miss., Schlater.—Mr. Jones let contract to Humphries & McGinnis to erect 4 stores to replace burned structure.

Mo., Kansas City.—G. R. Chambers, 400 New England Bldg., let contract to Geo. L. Brown & Son, 1300 Rialto Bldg., Kansas City, to erect building at 12th and Walnut Sts. for stores and offices; 115x50 ft.; 5 stories; fireproof; gravel roof; concrete floors; electric elevators; prism sidewalk lights; cost $140,000; steam heat, $10,000; Smith, Rea & Lovitt, Arch., Finance Bldg., Kansas City. Address contractors. (Noted in Apr.)

S. C., Gaffney.—Dr. J. N. Nesbitt let contract to L. Baker, Gaffney, to erect 2-story brick building; 22x100 ft.; steel ceiling; tiled vestibule.

Tenn., Memphis. — Mrs. John Gaston let contract to E. J. Pearson, Memphis, to rebuild north wall of building at 45 S. Main St., repair floors, install show windows, etc.; cost $5000.

Tex., Alice. — Chas. Burrow of American Meat Market let contract to erect brick

building 25x80 ft.; plans to expend $5000 for fixtures, including cold-storage plant, refrigerator, glass cases, etc.

Tex., Marion.—C. A. Kreuger & Co., let contract to M. R. Graham & Co., 3801 S. Presa St., San Antonio, to erect store; 45x90 ft.; mill construction; asbestos roof; concrete floor; cost $10,000; R. L. Pierce, Archt., San Antonio; address Contr.; construction begun. (Lately noted.)

Va., Norfolk.—J. Davis Reed, Portsmouth, Va., let contract to Mercer & Johnson, Norfolk, to erect building for stores and apartments; 25x96 ft.; semi-fireproof; Barrett Specification roof; wood floors; electric and gas lighting; terra-cotta trimmings; copper cornice; iron balconies; tapestry brick; cost about $5000; Mitchell & Wilcox, Archts., Paul-Gale-Greenwood Bldg., Norfolk; lately noted. (See Machinery Wanted.)

THEATERS

Ala., Montgomery.—Empire Theater, Percy L. Smith, Mgr., let contract to Mr. Baker, Montgomery, to remodel and improve theater; will install tile lobby floor, $550 fountain, lower orchestra pit, construct marquise, etc.

Ky., Lexington.—Phoenix Amusement Co. let contract to Whitton-Wheeler Construction Co., Louisville, to erect motion-picture theater on Main St.; 54x162 ft.; steel and frame; tile and Barrett's specification roof; wood floor; steam heat reserved; electric light; cost $28,000; Joseph & Joseph, Archts., Louisville. (Lately noted.)

Md., Baltimore.—J. Henry Miller, Eutaw and Franklin Sts., general contractor for Parkway Theater for Northern Amusement Co., let contract to Dietrich Bros., Pleasant and Davis Sts., Baltimore, for structural steel. (Lately noted.)

Mo., St. Joseph. — St. Joseph Electric Amusement Co. let contract to Hackett & Simpson, St. Joseph, to erect theater on Edmond St.; 75x120 ft.; ordinary construction; composition roof; wood floor; contract let to Central Heating Co. for vacuum steam heating; city light; cost $30,000; address contractors. (Lately noted.)

Tex., Pharr.—Mutual Investment Co. let contract to Ed. Casey, Pharr, to erect motion-picture theater on Canal St.; 50x100 ft.; semi-fireproof; iron roof; wood floor; cost $4000; electric light $300; cement sidewalk $200; C. C. Allen Maule, Archt., Pharr. (Lately noted.)

WAREHOUSES

Ala., Attalla.—J. H. Arnold & Co. let contract to erect warehouse, compress and office building; 250x400 ft. (See Compresses and Gins.)

Fla., Tampa.—P. H. Collins let contract to M. F. Lopez to erect warehouse; 30x125 ft.; mill and brick construction; gravel roof; wood and concrete floors; Fred J. James, Archt., Tampa.

Ky., Lexington.—L. B. Shouse let contract to Whitton-Wheeler Construction Co., Lexington, to erect warehouse on Vine St.; 3 stories; 23x75 ft.; mill construction; tar and gravel roof; electric light; elevator; F. J. Manley, Archt., Lexington.

Tex., Galveston.—Galveston Wharf Co. is reported to have let contract to Stone & Webster Engineering Corp., Dallas, to erect double-deck wharf sheds at Pier 41; steel and reinforced concrete; fireproof; each floor to have 260,000 sq. ft. storage space; will install handling machinery; cost about $200,000; Ford, Bacon & Davis, Engrs., 921 Canal St., New Orleans, La. (Noted in Mch.)

RAILROAD CONSTRUCTION

RAILWAYS

Ark., Ingleside.—C. B. Richmond of St. Louis is reported investigating for the contemplated construction of the Ingleside & East Arkansas R. R. from Ingleside to a connection with the St. Louis Southwestern Ry. at Fisher, Ark., 25 mi. Walker V. Powell of Little Rock, Ark., was recently reported working on a similar plan.

Fla., Jacksonville.—Jacksonville & Florida Ry. Co., capital $500,000, proposes to build electric line about 60 mi. from Jacksonville via Middleburg southwest to Providence, in Bradford county; construction in progress; offices at Jacksonville. A. W. MacKinlay is Prest.; R. F. Ensey, V.-P., and Charles G. Wilson, Secy. and Treas.

Fla., West Palm Beach.—Announcement is made that the plan to build the Palm Beach & Everglades R. R. is financed by the floating of $1,500,000 of 6 per cent. bonds in New York. It is now expected that construction will begin within two months. Contract has been let to Evert P. Maule of West Palm Beach to build the first 22 mi., construction to start as soon as forces can be assembled. J. A. Moore, Miami, Fla., is Gen. Mgr.

Ga., Rochelle. — Grading has been completed on the extension of the Ocilla Southern R. R. from Rochelle to Pope City, 7 mi., and Prest. J. A. J. Henderson of Ocilla, Ga., is quoted saying that further construction is under way toward Macon.

Ky., Mayfield.—Construction of an electric railway from Mayfield to Humboldt, Tenn., is contemplated. R. H. McNeely, Paducah, Ky., may give information.

Md., Williamsport.—Survey for the Williamsport, Nessle & Martinsburg R. R. is reported completed to the Cumbo line at Berkeley Station. Henry H. Hess is Engr. in charge. John Carmichael of Hagerstown, Md., is Prest.

Mo., Mexico.—Concerning the report that it would build a line from St. Joseph to Mexico, the Chicago, Burlington & Quincy R. R. Co. says there is no new work being started. Considerable work begun last year is yet tied up.

N. C., Mount Airy.—Mount Airy & Eastern Ry. Co. has just completed survey for an extension of its narrow-gauge line, the new work to be from Meadowfield, Va., to a timber tract. Joseph C. Sheehy is Prest.; Sidney Bieber, V.-P.; David O. Sunderland, Ch. Engr.; Willis Parker, Treas., and A. W. Machen, Secy.

Okla., Sapulpa.—Contracts signed for construction of railroad proposed by C. N. Haskell of Tulsa and Muskogee, Okla., from Sapulpa to Oilton, 30 mi., work to begin immediately. R. D. Long of Muskogee and Wm. Murdoch of Jennings, Okla., are also reported interested. J. J. Harrison is Engr.

S. C., Charleston.—Southern Ry. Co. will construct a storage yard of 400 cars capacity in connection with its export coal terminals now being completed at Charleston. W. H. Wells is Ch. Engr. of Constr. at Washington, D. C.

S. C., Greenwood.—Financial arrangements are being completed for construction of Savannah, Piedmont & Western Ry. from Greenwood to Augusta, about 60 mi. Preliminary survey made. Rights of way obtained almost entire distance. S. H. McGhee and Kenneth Baker of Greenwood, and J. Peyton Clark, 43 Cedar St., New York, interested.

Tex., Lamesa. — Nothing substantial has yet developed concerning the plan to build a railroad from Lamesa to Midland, Tex., as proposed by W. L. Carwile of Dallas, Tex., and associates.

Tex., Houston. — Houston, Richmond & Western Traction Co. proposes to build an electric railway from Houston to Richmond, Tex., 30 mi., including a bridge over the Brazos River. Ed Kennedy, Houston, is Prest. and Gen. Mgr.; J. G. Eganhouse is Treas. Other directors are D. R. Beatty, F. P. Eastburn and W. W. Thomas of Houston.

Tex., Roby.—Roby & Northern R. R. Co. will open bids May 20 for 4½ mi. of grading on its line from Roby to North Roby, Tex., 5 mi.; also for 2 pile trestles, one 60 ft., the other 260 ft. Geo. L. White of Hillsboro, Tex., is Prest.; L. H. McCrea, V.-P. and Gen. Counsel; L. C. Eastland, Gen. Mgr.; O. C. Walker, Treas., and J. McWhirter, Secy.

W. Va., Charleston.—Charleston Interurban R. R. Co. sold $750,000 of 6 per cent. notes, proceeds of which will be used for building projected extension to Montgomery, 24 mi. W. A. MacCorkle of Charleston is Prest. and S. M. Gaileher Supt.

W. Va., Morgantown.—Crossan Construction Co.'s contract for the Buckhannon & Northern R. R. consists of grading for passenger and freight station sites and for yards. S. D. Brady, Fairmont, W. Va., is Ch. Engr.

W. Va., Williamson.—J. E. Crawford, Ch. Engr. Norfolk & Western Ry., Roanoke, Va., has let contract to H. M. Waugh of Orange, Va., to build main line, including coal company side tracks to Leckies Mines in Kentucky, near Williamson. Excavation over 100,000 cu. yds. Mr. Waugh's office will be at Williamson.

STREET RAILWAYS

La., Gretna.—Edward L. Slattery and others are interested in a plan for the construction of a street railway about 2 mi. long from the ferry landing at Gretna to a point on the New Orleans Southern & Grand Isle Ry. Stritzinger & Rein of Gretna may give information.

N. C., Durham.—Construction of the extension of the Durham Traction Co.'s line to the baseball park, 1 mi., will begin in a few days, and it is expected to be finished in July. It is contemplated to make another extension later in the year. R. L. Lindsey is Gen. Mgr.

N. C., Newbern. — Newbern-Ghent Street Ry. Co. contemplates building extensions. C. J. McCarthy is Gen. Mgr.

Mo., Springfield.—Springfield Ry. & Light Co. proposes to build an extension. W. A. Haller is Prest.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

"WANTS"

Acid (Picric).—Edgar Franklin & Co., 62 Basinghall St., London, E. C., England.—1000 tons picric acid; to be furnished in June at $1.73½ f. o. b. New York, net cash; usual way through bank; might obtain contract at $1.74; wants offers cabled.

Balconies (Iron).—See Building Material.

Blackboard (Composition). — Edwin T. Elam, Pineville, La.—Composition blackboards for $13,328 school.

Boiler and Engine.—Prairie View Rice & Land Co., E. Mathis, Secy.-Treas., Hunter, Ark.—Prices on 70 H. P. high-pressure boiler and 40 H. P. engine.

Boilers.—Otto H. Hesse, Leavenworth, Kan.—Bids on boilers for heating for light manufacturing building. (See Building Materials.)

Boilers.—See Soapmakers' Machinery.—Edgar W. Kirk Soap & Cleanser Co.

Bone Mill.—C. F. Myres, Salisbury, N. C., R. F. D. 3, Box 65.—Mill for grinding bones; steam or gasoline power.

Bookcases.—See Church Furniture.

Brick.—Stephen C. Singleton, Jr., Crystal Springs, Fla.—Red brick of rough finish, suitable for facing fireplace and chimney; about 12,000 needed; samples desirel.

Brick. — Bienville Lumber Co., W. A. Davenport, Prest. and Mgr., Alberta, La.—400,000 common brick for plant, Forest, Miss.

Brick.—J. G. White, Grover, N. C.—See Building Material.

Brick Machinery. — Wm. H. Platt, Thomasville, Ga.—New or second-hand complete equipment, including kiln, for manufacturing brick.

Brick (Tapestry).—See Building Material.

Bridge Construction.—Baltimore (Md.) Board of Awards.—Bids until May 26 to reconstruct old Chase St. bridge on Bentalou St. over Western Maryland R. R.; specifications and proposal sheets on application to office City Engr., H. K. McCay.

Bridge Construction.—Henderson county, S. A. Young, County Judge, Henderson, Ky.—Bids until May 25 to construct 11 steel and concrete bridges and 1 concrete culvert; plans, specifications and estimates of cost furnished by State Commr. of Public Roads and on file with S. H. Kimmel, County Roads Engr.

Building Material.—Roby & Northern R. R. Co., Roby, Tex.—Prices on concrete, metal lath, composition roofing, tiling, metal windows, etc., for depot to cost about $3000.

Building Material. — A. F. Sanders, Fellsmere, Fla.—Prices on building material and electrical supplies for $30,000 school building.

Building Material.—Leo I. Oberwarth, Frankfort, Ky.—Catalogues, samples, prices, etc., of materials and equipment of interest to architects.

Building Material.—J. G. White, Grover, N. C.—Prices on building material, including brick, cuts and prices on glass front and fixtures for 1-story store building, 25x50 feet.

Building Material.—Mitchell & Wilcox, Paul-Gale-Greenwood Bldg., Norfolk, Va.—Prices on terra-cotta trimmings, copper cornice, iron balconies and tapestry brick for $5000 store and apartment building.

Building Materials, etc. — Otto H. Hesse, Leavenworth, Kan.—Bids on steel windows, glazing, roofing, maple flooring and heating boilers for $18,000 light manufacturing building, Kansas City, Mo.

Burners (Weed, Gasoline).—L. H. B. Hand, Star Route, Box 15, El Centro, Cal.—Gasoline burner for burning weeds from fence rows and weeds and noxious grasses in alfalfa, etc.

Canal Excavation, etc.—United States Reclamation Service, Provo, Utah.—Bids until June 16 for 25,000 cu. yds. canal excavation and 2600 cu. yds. reinforced concrete; work located near Payson City, Utah, on San Pedro, Los Angeles & Salt Lake R. R. and Tintic Branch of Denver & Rio Grande R. R.; for particulars address United States Reclamation Service, Provo, Utah, or Washington, D. C.; A. P. Davis, Ch. Engr.

Canning Machinery. — T. W. Dees, Route No. 26, Matthews, N. C.—Data and prices on equipment for cannery.

Card Covering, etc.—Thos. Abbott, Hotel Telegrafo, Habana, Cuba.—Card covering, etc., for preparing machinery for cotton spinning.

Cement.—Bienville Lumber Co., W. A. Davenport, Prest. and Mgr., Alberta, La.—Prices on 160,000 lbs. Portland cement for plant, Forest, Miss.; may want as much more later.

Cement (Portland), etc.—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 15 for delivering Portland cement, mineral lubricating grease, hardware and tools, pneumatic hoists, oars, yellow ocher, mineral oil, petroleum spirits, Venetian red, shafting steel, unions, mixing varnish, combined windlass and hoist at Navy-yard, Mare Island, Cal., etc. Apply for proposals to navy pay office, San Francisco, or to Bureau.

Cement and Gravel. — Water-works Committee, Jake Tremmel, Chrmn., Biloxi, Miss.—Bids until May 31 to furnish 30 bbls. of Atlas cement or its equal, and 150 bbls. washed gravel of size to be passed through ½-in. ring; prices to include delivery board cars Biloxi.

Chairs.—See Church Furniture.

Channeler.—See Drill (Channel). — Virginia Granite Corporation.

Chemical Products.—See Metals, etc.—Ivan Bantcheff Kasandjieff.

Chemicals.—Luccardi & Co., Piazza Castello 19, Milan, Italy.—Interested (view to representation) in aniline colors, silicate of soda, caustic soda, carbonate of soda (Solvay 98-100 degree), sulphate of alumina, chloride of lime, etc.

Church Furniture. — C. W. Hardan, Miles, Tex.—Prices on library tables, chairs, desks, kindergarten chairs and tables, bookcases.

Coal and Ash-handling Machinery. Dept. of Interior, Bo Sweeney, Asst. Secy., Washington, D. C.—Bids until June 8 to furnish stokers, oal and ash-handling machinery, etc., for power-house of Government Hospital for Insane, Anacostia, D. C.; specifications, etc., on application to Chief Clerk.

Coal. — Board of Education, Nashville, Tenn.—Bids until May 31 to furnish coal for public schools for year beginning July 1; 30,000 bus. lump, 1000 bus. run of mine and 3000 bus. P. and S. required; delivered at option of contractor between June 10 and Sept. 1, provided delivery completed within 30 days from commencement thereof.

Concrete.—See Building Material.

Condenser (Surface).—E. C. Randle, 30 Church St., New York.—Surface condenser, 500 to 700 H. P.

Corn Mill Frames.—J. T. Wyatt, R. F. D. 3, Box 10, Salisbury, N. C.—6 portable corn mill frames without the stones; new or second-hand.

Cornice (Copper).—See Building Material.

Creosoting (Piling and Crosstie) Machinery.—Cyril C. Isaacs, 217 Rutledge Ave., Charleston, S. C.—Correspondence with manufacturers of machinery for creosoting wood (piling and crossties.)

Culvert Construction.—City of Memphis, Tenn., O. C. Pashby, City Clerk.—Bids opened May 18 to construct outfall culvert on Bayou Gayoso from pumping station to Wolf River; 1500 cu. yds. excavation; 1200 cu. yds. No. 1 concrete in culvert and apron; 3880 lin. ft. wood piling furnished; 3880 lin. ft. wood piling driven; specifications and profiles on file with City Engr.; plans and specifications obtainable for $5.

Cotton-spinning Machinery. — See Card Covering, etc.

Dairy Farm Equipment (Sanitary). M. G. Callin, St. Augustine, Fla.—Prices on sanitary dairy barn equipment.

Desks.—See Church Furniture.

Drainage.—Directors, Drainage Dist. No. 2, Gibson county, Trenton, Tenn.—Bids until June 9 to excavate by dredge-boat about 1,158,386 cu. yds. earth; to be bid on in 2 sections and as whole; for specifications address W. W. Powers, County Judge; W. W. Powers, R. Killough and K. E. Witherspoon, directors.

Drill (Air).—R. C. Huey, Acting Forest Supvr., Arkansas National Forest, Hot Springs, Ark. — Small air drill outfit on trucks or a tractor.

Drill (Channel).—Virginia Granite Corporation, 806 Virginia Railway & Power Bldg., Richmond, Va.—Channel drill outfit for 16 to 20-ft. hole.

Electric Fixtures and Wiring.—See Electric Plant, Isolated.

Electrical Supplies. — A. F. Sanders, Fellsmere, Fla.—Prices on electrical supplies for $30,000 school building.

Electric-light Equipment. — J. D. Denny, Alderman, Milan, Tenn.—Prices on 100 K. W. generator, A. C.; 25 K. W. generator, A. C., with engine direct-connected; 150 meters; 250 chestnut or cedar poles, 30 ft. long; 76 street light fixtures; also wire, crossarms, insulators, etc.

Electric Plant (Isolated).—M. G. Callin, St. Augustine, Fla.—Prices on electric plant, wiring and fixtures for small dwelling.

Electrical Machinery, etc. — W. C. Norris, Union City, Tenn.—Generator and 10 H. P. engine.

Electrical Machinery. — Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 1 for erecting toolroom enclosure and for delivering bronze and steel forgings, motors, sperm oil, steel shells, steel, machine tools, copper and steel tubing at naval torpedo station, Newport, R. I. Apply for proposals to navy pay office, Newport, or to Bureau.

Electrical Supplies.—McIntyre & Stacy, Electrical Contrs., Hendersonville, N. C.—Correspondence with manufacturers and jobbers of electrical goods.

Elevator (Electric).—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C.—Bids until June 11 to install complete electric passenger elevator in U. S. postoffice and courthouse at Augusta, Ga.; copies of plans and specifications may be had from Treasury Dept.

Engine.—J. R. Hime Sand Co., Box 827, Atlanta, Ga.—See Sand-handling Plant.

Engine.—See Soapmakers' Machinery.—Edgar W. Kirk Soap & Cleanser Co.

Engine, etc.—W. C. Morris, Union City, Tenn.—10 H. P. engine and generator.

Engine (Kerosene).—Farmers' Milling & Feed Co., J. E. Weindel, Secy.-Mgr., Fort Smith, Ark., R. R. No. 2.—Bids until June 15 on 20 or 25 H. P. kerosene engine; new or used.

Engine (Oil).—Southern Machinery Exchange, Bisbee Bldg., Jacksonville, Fla.—Dealers' prices on 100 to 150 H. P. engine for burning Mexican crude oil.

Engine and Boiler.—Prairie View Rice & Land Co., E. Mathis, Secy.-Treas., Hunter, Ark.—Prices on 40 H. P. engine and 70 H. P. high-pressure boiler.

Fans.—Dickerson Cotton Cleaner Co., Fort Worth, Tex.—Special fan, manufactured in lots of 100.

Forgings. — See Electrical Machinery.—Bureau Supplies and Accounts.

Foundry (Malleable) Equipments. Kilby Locomotive & Machine Works, Anniston, Ala.—Malleable foundry equipment.

Grains, etc.—M. Portela & Co., manufacturers' agents, Mayaguez, Porto Rico.—Interested (view to representation) in grain, flour, cornmeal, natural and artificial butter, rice, sugar, etc.

Galvanized Ironware, etc.—M. Portela & Co., manufacturers' agents, Mayaguez, Porto Rico.—Interested in galvanized ironware; also lead manufacturers; view to representation.

Gravel.—See Cement and Gravel, Water Committee, Biloxi, Miss.

Handles.—Ideal Mfg. & Supply Co., Sapulpa, Okla.—To order large quantity No. 1 handles, 1 in. by 4 ft. 6 in.

Hardware.—See Tools, etc.

Hardware.—M. G. Callin, St. Augustine, Fla.—General hardware catalogue.

Hardware, etc.—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 1 for delivering anthracite coal, coke, hardware and tools at Navy-yard, Portsmouth, N. H., etc. Apply for proposals to navy pay office, Portsmouth, or to Bureau.

Hay-handling Machinery. — T. W. Ruff, Rockton, S. C.—Improved hay-handling machinery for $2000 barn.

Heating System.—Walter H. Woodson, Mayor, City Hall, Salisbury, N. C.—Bids until June 8 to furnish material and labor to install 1-pipe gravity return heating system for East Inniss St. Graded School; plans and specifications from J. W. Webb, City Engr.

Heating. — Burwell & Snodgrass, 302 Union Trust Bldg., Parkersburg, W. Va.—Prices on heating equipment for $7000 dwelling.

Heating Plant. — Board of Education, Pryor, Okla.—Prices on heating plant for $10,000 high school building.

Heating Plant. — University of South Carolina, August Kohn, Chrmn. Building Committee, Columbia, S. C.—Bids until May 18 to extend central heating plant; plans, specifications and information obtainable from Wilson & Sompayrac, Archts., Palmetto Bldg., Columbia.

Heating Plant.—Dr. J. H. Lockhart, Honaker, Va.—Prices on steam-heating plant for bank or store building; 2 stories; 30x44 feet.

Heating Plants. — W. Peine, Business Representative of Public Schools, Room 4, Central High School, Houston, Tex.—Bids until May 24 for repairs and installation of 8 new heating plants in Central High School Bldg.; specifications furnished by Mr. Peine.

Heating and Ventilating Plant.—W. C. Morris, Union City, Tenn.—Prices and suggestions on heating and ventilating systems for theater and store building.

Heating and Ventilating.—Board of Public Instruction, A. A. Core, Secy., Apalachicola, Fla.—Bids until June 3 for installation of heating and ventilating equipment in school building; plans and specifications at office of board and office of C. F. Streeter, Archt., 513 West Bldg., Jacksonville, Fla.

Hoist.—B. S. Webb, Jr., 601 Bellaire Ave., Lexington, Ky.—Prices on brick hoist or elevator.

Hoist.—J. R. Hime Sand Co., Box 827, Atlanta, Ga. — Hoist. — See Sand-handling Plant.

Hoists.—See Cement (Portland), etc.

Hosiery. — Edgar Franklin & Co., 62 Basinghall St., London, E. C., England.—To contract for large quantity cotton socks.

Ice Machinery.—Piedmont Produce Co., Amherst, Va.—15-ton belt-driven ice machine. Address with full details.

Lath (Metal).—See Building Material.

Laundry Machinery.—T. H. Hendricks, Norton, Va.—Addresses of manufacturers of laundry machinery.

Lead Manufactures. — See Galvanized Ironware, etc.

Lights (Sidewalk).—P. J. O. Smith & Son, Spartanburg, S. C.—Prices on sidewalk lights.

Locomotives. — Ivan Bantcheff Kasandjieff, Rue Vitochkla No. 49, Sofia, Bulgaria. Interested in locomotives; view to agency. (See Metals, etc.)

Manufactures. — J. Carreira Junior, Caixa Postal 163, Recife-Pernambuco, Brazil. Interested (view to agencies) in cement, wheat flour, gasoline, turpentine, paints, oils, iron goods, firearms and munitions of war for revolvers and rifles, hats and head covering, dried fruits, preserves, gentlemen's furnishing goods, rubber collars, shirts, shoes, stockings, perfumery, silk, general fancy goods, linen and cotton manufactures, etc.

Metal Ceiling.—P. J. O. Smith & Son, Spartanburg, S. C.—Prices on metal ceiling.

Metal Culverts.—S. A. Young, Henderson County Judge, Henderson, Ky. — Bids until May 25 to furnish county, f. o. b. cars, the following corrugated metal culverts: 3 pieces 36-in., 4 pieces 30-in., 10 pieces 24-in., 10 pieces 18-in., 20 pieces 15-in. and 30 pieces 12-in., all 24 ft. long; 3 pieces 36-in., 4 pieces 30-in., 10 pieces 24-in., 10 pieces 18-in., 20 pieces 15-in. and 30 pieces 12-in., all 20 ft. long; 2 pieces 15-in., 12 ft. long; total 3412 ft.; bidders requested to state gauge of iron, chemical analysis, brand of metal and names of manufacturers; also to submit specifications with bids; metal to be delivered within 30 days after letting of contract; S. H. Kimmel, County Road Engr.

Metals, etc. — Ivan Bantcheff Kasandjieff, Rue Vitochkla No. 49, Sofia, Bulgaria. Interested (view to representation) in metals, zinc, copper, lead, iron, galvanized iron, sheet iron, iron bars, steel bars, rails for steam railways, tin, lead, zinc white; also locomotives and chemical products.

Mixer (Concrete).—Crawford Williamson Construction Co., Memphis, Tenn.—Concrete mixer.

Mixer (Concrete).—Slattery & Henry, Contrs., Greenville, S. C.—Concrete mixer for street paving; Ransome, Koehring or Smith, 14 cu. ft. capacity, power charging skip, 12 to 14-ft. distributing chute.

Novelties. — See Stationery. — Clifford Berry.

Paints, Oils, etc.—See Manufactures.—J. Carreira Junior.

Paper (Wrapping) and Paper Bags. M. Portela & Co., manufacturers' agents, Mayaguez, Porto Rico.—Interested in wrapping paper and paper bags; view to representation.

Paving.—E. E. Erwin, Recorder, Columbia, Tenn.—Bids at City Hall until May 31 on about 8900 sq. yds. asphalt-concrete on macadam base, 14,200 sq. yds. asphalt-macadam mixed method on macadam base and 3800 ft. combined curb and gutter; contractor to surface and grade roadbed; samples of asphalt to accompany bid.

Paving. — Office of City Engr., Uvalde, Tex.—Bids until May 27 to pave about 600 sq. yds. streets with standard form of waterproof pavement, including 1300 lin. ft. of concrete curbing.

Paving.—City of Macon, Ga., D. S. Jones, Clerk.—Bids until June 1 for paving certain streets; plans and specifications at office of City Engr.; bids to cover paving with vitrified brick, wire lug cut brick, plain concrete, concrete covered with tarvia, creosoted wood block, asphalt block, sheet asphalt, asphalted concrete, bitulithic pavement, tarvia concrete, fiber asphalt, bituminous macadam and granite block.

Paving.—W. B. Moore, City Clerk, Miami, Fla.—Bids until May 20 to grade and pave with Miami rock, construct combined curb and gutter, install standard inlets and furnish and apply liquid asphalt to surface of sections of 10th, 22d and Bay Sts., distance of grading and paving being respectively 1214, 602 and 1304 ft.; grade and pave with Miami rock sections of 26th St. and Ave. P, distance being 800 and 2450 ft., respectively; also grade and pave with Miami rock and furnish and apply asphalt macadam to surface, construct concrete curb and gutter, etc., on section of Ave. G and 12th St., distance being 3850 and 2050 ft., respectively; profiles, plans, specifications, etc., on file with City Clerk.

Paving.—City of Weston, Mo., Terrence Riley, Clerk.—Will open bids about June 1 on following paving: Washington St., length about 3000 ft., 26 to 29 ft. wide; Main St., length about 1000 ft., width 40 ft.; both macadam, with bituminous binder; Chas. E. McCrae, Engr., 217 Reliance Bldg., Kansas City, Mo.

Paving.—City of Vicksburg, Miss.—Bids until June 7 to construct sidewalks on sections of Monroe, Jackson, Veto and other streets; plans and specifications on file with City Engr.; J. J. Hayes, Mayor.

Paving.—Hamilton County Commrs., H. B. Bryan, County Engr., Chattanooga, Tenn. Bids until May 31 to construct cement, concrete or bituminous concrete pavement with concrete curb and gutter on McCallie Ave. from Dodds Ave. and extending to west portal of Missionary Ridge tunnel; blank proposal forms, specifications, etc., furnished by County Engr., Courthouse, for $5; Will Cummings, County Judge.

Paving.—Board of Improvement, Frank E. Robbins, Secy., Conway, Ark.—Bids until May 21 to construct about 8000 yds. concrete paving in Street Improvement Dist. No. 3; plans and specifications on file with B. G. Wilson, Engr., Conway.

Pipe Organ.—Harry B. French, 3986 Cottage Ave., Baltimore.—Catalogues and specifications on church pipe organ to cost $2000 to $2500.

Plaster Board.—Bain & Hinkle Roofing & Cornice Co., 2420 First Ave., Birmingham, Ala.—Names and addresses of plaster board manufacturers.

Pulverizer (Quartz Rock).—Geo. W. Evans, 29 Warden Bldg., Washington, D. C. Pulverizer for hard quartz rock to be tested dry.

Pump.—See Turbine (Reaction).—B. Hal Robinson.

Pump (Water).—See Soapmakers' Machinery.—Edgar W. Kirk Soap & Cleanser Co.

Pump.—B. F. Roberts, Macon, Ga.—Prices on 150 G. P. M. deep well pump for installation Alma, Ga.

Pump (Centrifugal). — Seguin Waterworks Co., Owen A. Gafford, Mgr., Seguin, Tex.—Vertical centrifugal pump to deliver 200 or 300 gals. per min. against pressure of 80 lbs. or less.

Rails.—See Metals, etc.—Ivan Bantcheff Kasandjieff.

Railway Construction Materials, Equipment, etc.—Roby & Northern R. R.

FOR the benefit of business concerns, engineers, contractors, machinery manufacturers, dealers and others who find it profitable to follow up daily the industrial, commercial, railroad and financial development of the South and Southwest as published in this Construction Department,

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Co., L. C. Eastland, Gen. Mgr., Roby, Tex.—Bids for 4½ mi. grading, 2 trestles, hauling material, locomotives and cars for 5-mi. railway from Roby to North Roby. (Rails, switches, drain pipe and part of ties already purchased.)

Range (Cooking, etc.). — The Exchange, Bryan Lawrence, Propr., 127 Jackson St., Augusta, Ga.—Range, coffee urns, etc., about Sept. 1.

Reinforcing Bars.—Eureka Paving Co., Carter Bldg., Houston, Tex.—Prices on reinforcing bars. (This company has bridge and roads contracts for city of Houston.)

Reinforcing Bars, etc.—Panama Canal, F. C. Boggs, Gen. Purchasing Officer, Washington, D. C.—Bids until June 5 to furnish steel reinforcing bars, stay-bolt iron, bolts, rivets, stovepipe, brass tubing, brass pipe fittings, brass grommets, hammers, files, chisels, taps, reamers, stocks and dies, bits, twist drills, blacksmith's drills, carpenter's braces, adzes, axes, scythe blades, saws, machetes, rakes, vises, marine lights, oars, oarlocks, cocks, airbrake hose, leather belting, window glass, steel filing cabinets and bookcases, oak desks, wicker chairs, aluminum sulphate, unslaked lime, coal tar, pitch, lampblack, black asphaltum varnish, Japan drier, paints, shellac and varnish remover; blanks and general information relating to this circular (No. 928) may be obtained from this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and 1086 North Point St., San Francisco; also from U. S. Engr. offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

Rifles.—Edgar Franklin & Co., 62 Basinghall St., London, E. C., England.—To contract for large quantity of Mauser or other rifles.

Road Construction. — Madison County Commrs., A. P. Cameron, Commr., Supvrs.' Dist. No. 1, Canton, Miss.—Receive bids first week in July to construct roads; plans ready June 7; Xavier A. Kramer, Engr., Magnolia, Miss.

Road Construction. — S. L. Brown, Clerk Pocahontas County Court, Marlinton, W. Va.—Bids until May 25 to construct road from Spice Run to old Droop Mountain Rd. on location surveyed by E. H. Williams, County Surveyor.

Road Construction.—Road Commrs. of Smithville Township of Brunswick County, C. Lennon, Chrmn., Southport, N. C.—Bids until May 24 to construct about 16 mi. sand-clay road; plans, profiles and specifications obtainable from Road Commrs. at Southport and from W. H. Banck, Engr., Wilmington.

Road Construction.—Lookout Mountain Pike Com., H. F. Lawrence, Chrmn., Chattanooga, Tenn.—Bids until May 31 to construct concrete pike, 2.13 mi. long, together with culverts, walls, etc., beginning at St. Elmo Ave. and crossing Lookout Mountain to bridge across Lookout Creek; blank proposal forms, specifications, etc., furnished by H. B. Bryan, County Engr., Courthouse, for $5.

Road Construction. — Wilcox County Commrs., Courthouse, Camden, Ala.—Bids until June 7 to grade and gravel part of Selma and Mobile Rd., beginning near Dallas county line; W. S. Keller, State Highway Engr., Montgomery, Ala.

Road Construction.—Harrison County Commrs., Marshall, Tex.—Bids until May 24 to construct about 25 mi. graveled and macadam highway in Road Dist. No. 1; plans on file with N. P. Turner, Highway Engr., Marshall.

Roofing (Composition).—See Building Material.

Roofing (Green Tile).—L. D. Murphy, 623 E. 13th St., Little Rock, Ark.—Prices on green tile roofing.

Roofing and Siding (Metal).—Geo. G. Steiner & Co., Jefferson, Md.—Metal roofing and siding.

Sand-handling Plant. — J. R. Hime Sand Co., Box 827, Atlanta, Ga.—Data and prices on complete plant, installed at Junction City, Ga.; daily capacity 10 cars, or 400 tons material; prefer quotations on bucket excavator, operating on overhead cableway with about 500 ft. radius—steam or gasoline hoist; wants separate quotations on plow, steel cable 1⅛ to 1¼, 2 double and 2 single blocks for either 24 or 30 cu. ft. excavator, load and tension lines of best quality plow steel ⅝ to ¾, guy lines and tension bridles, balance guys, balance bridles, and clips to operate 500-ft. span; also separate bids on engine and hoist.

School Equipment.—Board of Education, Pryor, Okla.—Prices on equipment for high school building, including seats, etc.

Seating.—See School Equipment.

Sewage-Disposal Plant (Isolated). M. G. Callin, St. Augustine, Fla.—Plan for sewage-disposal plant; prices on water pipe.

Sewer Construction.—City of Houston, Tex., Ben Campbell, Mayor.—Bids until May 24 to construct sanitary sewers in West Montgomery Rd. and Freeman St.; specifications and information obtainable from E. E. Sands, City Engr.

Sewer Construction.—Hamilton County Commrs., H. B. Bryan, County Engr., Chattanooga, Tenn.—Bids until May 31 to construct pipe storm-water sewer from Oak and Carpenter Sts., along Carpenter St. and McCallie Ave. to Shallow Ford; blank proposal forms, specifications, etc., furnished by County Engr., Courthouse, for $5; Will Cummings, County Judge.

Sewer Machinery. — See Water-works and Sewer Machinery.—City of New Smyrna, Fla.

Sewer Materials.—See Water-works and Sewer Material.—City of New Smyrna, Fla.

Sewer Construction. — W. B. Moore, City Clerk, Miami, Fla.—Bids until May 20 to construct 8-in. vitrified pipe sewer on 14th, 12th and 7th Sts., Ave. J, Ave. K and Ave. B; profiles, drawings, specifications, etc., on file with City Clerk.

Sewer Construction.—Baltimore (Md.) Board of Awards.—Bids until May 26 to construct section 2 of Ferry Point interceptor, sanitary contract No. 154, and for furnishing 300 tons castings, contract No. 11; contract No. 154 calls for 11,000 cu. yds. excavation, 1800 lin. ft. 27-in. sewer and 1560 lin. ft. 24-in. sewer; specifications and plans obtainable from Harry W. Rodgers, Secy. Sewerage Com., 904 American Bldg., and are on file with Calvin W. Hendrick, Chief Engr. Sewerage Com.

Sewerage and Water-works. — City of Carruthersville, Mo., W. D. Byrd, Mayor. Separate bids until June 2 for sewerage, including about 7 mi. 8 to 18-in. pipe, 4 to 22 ft. deep; 81 manholes, 25 flush tanks, sewage-pumping station, with motor-driven centrifugal pumps and Mississippi River outfall; water-works improvements, including about 3 mi. 4 and 6-in. cast-iron water pipe with lead joints, 24 hydrants, 18 valves with boxes; pumping station improvements consist of resetting second-hand boiler and feed pump, furnishing and setting new feed pump and heater, piping and connecting existing wells to pump; specifications, etc., obtainable from Frank L. Wilcox, Engr., Syndicate Trust Bldg., St. Louis, on payment $25 for sewers and $15 for water.

Soapmakers' Machinery. — Edgar W. Kirk Soap & Cleanser Co., Edina, Mo.—Bids on engine, boilers, pans, tanks, water pump and general soap machinery.

Stationery, etc. — Clifford Berry, care Orangeburg Evening News, Orangeburg, S. C.—Prices on stationery; also catalogues and prices on small art goods and novelties suitable for stationery store.

Steel and Iron.—H. E. Johnson, manufacturers' agent, Room 3, 12 Melinda St., Toronto, Canada. — Correspondence with American manufacturers relative to quotations and terms on following, ex ships tackle, Manchester, Eng.: 5000 tons steel as per following specialties: Billets 2 to 4 in. sq., rising by ¼ in.; 2 to 3 in. sq., 16 to 18-ft. lengths; 4 in. sq., 2 ft. 6 in. to 3 ft. 6-in. lengths; open hearth basic steel (will supply analyses); also billets for rolling into strips, sheet bars for sheets, basic pig-iron, hematite pig-iron, charcoal pig-iron, steel—round, square and flat, mild steel plates, flat iron bars and mild steel wire.

Stock Certificates.—Alabama Mfg. Co., Bay Minette, Ala.—Samples and prices on stock certificates.

Store Equipment, etc.—W. C. Morris, Union City, Tenn.—Prices and suggestions on heating and ventilating systems and furnishing and decorating for $6000 store and theater building; also 10 H. P. engine and generator.

Store Fixtures.—J. G. White, Grover, N. C.—Prices on store fixtures.

Store Front (Glass). — J. G. White, Grover, N. C.—Cuts and prices on glass front for 1-story store building, 25x50 ft.

Tables.—See Church Furniture.

Terra-cotta Trimmings.—See Building Material.

Textiles.—See Manufactures.—J. Carreira Junior.

Tile.—See Building Material.

Tools.—See Cement (Portland), etc.

Tools.—See Hardware, etc.

Tools, etc. — Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 1 for delivering coke, hardware and tools at Navy-yard, Charleston, S. C. Apply for proposals to navy pay office, Charleston, or to Bureau.

Tower.—M. G. Callin. (See Windmill.)

Turbine (Reaction).—B. Hal Robinson, Lancaster, Va.—Reaction turbine, generating about ¼ H. P.; also pump, requiring not over ½ of this power, to operate.

Urns (Coffee).—The Exchange, Bryan Lawrence, Propr., 127 Jackson St., Augusta, Ga.—Coffee urns, etc., about Sept. 1.

Ventilating System. — W. C. Morris. (See Store Equipment, etc.)

Water Pipe.—M. G. Callin, St. Augustine, Fla.—Prices on 1-in. water pipe.

Water Tower.—City of Rolla, Mo.—W. J. Pierce, City Clerk.—Bids until May 24 to construct steel water tower 30 ft. high on concrete base; 4 propositions to be submitted as to capacity—150,000, 200,000, 250,000 and 300,000 gals., respectively; height to be same in each bid; also receive bids at same time to furnish 250 water meters, sample to accompany bids.

Water-works Extension. — Board of Aldermen, Frederick, Md.—Bids until May 28 to furnish and lay 12-in. cast-iron pipes, special castings, valves, etc.; specifications, etc., obtainable from J. H. Schmidt, City Clerk; Geo. A. Burck, Water-works Supt., and from Wm. H. Boardman, Engr., 426 Walnut St., Philadelphia, Pa.

Water-works. — See Sewerage and Water-works.—City of Carruthersville, Mo.

Windows (Steel).—See Building Materials.—Otto H. Hesse.

Water-works and Sewer Machinery. City of New Smyrna, Fla., G. W. Brown, Chrmn., Board Public Works.—Bids until May 26 for machinery for water-works and sewerage system; pumping plant driven by steam, oil engines or motors; type of equipment to be decided after bids are in; steam plant—2 80 H. P. boilers, steel cased; boiler-feed pump and heater; 2 500 G. P. M. compound pumps; oil-burning equipment for 2 boilers; 10,000-gal. horizontal type steel oil-fuel tank; oil-engine plant—2 500 G. P. M. triplex or duplex pumps, driven by 2 50 H. P. oil engines burning crude or distillate fuel oil; 10,000-gal. fuel-oil tank, horizontal type; electric-driven plant—2 500 G. P. M. triplex pumps, driven by 2 50 H. P., 2300-volt motors; 75,000-gal. tank on 75-ft. tower; water-softening plant, 150,000 gals. 24 hours; specifications obtainable from J. B. McCrary Co., Engrs., 1408 Third National Bank Bldg., Atlanta, Ga.

Water-works and Sewer Material.—City of New Smyrna, Fla., G. W. Brown, Chrmn., Board Public Works.—Bids until May 19 to furnish material for water-works and sewerage system; includes 405 bbls. cement, 11,054 lbs. steel reinforcement, stone, lime, 28,595 lin. ft. 18, 15, 12 and 8-in. pipe, 148,780 brick, 40 hydrants, 11,000 ft. 1½-in. galvanized iron pipe, etc.; specifications obtainable from J. B. McCrary Co., Engrs., 1408 Third National Bank Bldg., Atlanta, Ga.

Water-works.—J. G. Sutton, City Secy., Beaumont, Tex.—Bids until May 18 to furnish material and labor and construct extension of water-works canal; plans and specifications on file with City Secy. and of Engrs., Burns & McDonnell, 821-826 Scarritt Bldg., Kansas City, Mo.; Emmett A. Fletcher, Mayor.

Windows (Metal).—See Building Material.

Windmill.—M. G. Callin, St. Augustine, Fla.—Prices on windmill and tower.

Woodworking (Sanding)Machine. Alexander City Mfg. Co., B. J. White, Mgr., Alexander City, Ala.—Prices on sanding machine (arm sander.)

Extensive Lumber Facilities.

The W. G. Ragley Lumber Co., Ragley, La., put its new plant in operation recently, and its facilities are extensive. Briefly, this enterprise may be outlined as follows: Sawmill with daily capacity 125,000 feet of lumber and can saw timbers up to 44 feet long; steam drykilns with daily capacity 60,000 feet; rough lumber sheds with capacity 2,500,000 feet; planing mill with daily capacity 100,000 feet; dressed lumber sheds for 2,000,000 feet; four boilers of 750 horse-power; twin engines of 1000 horse-power, etc.

FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

FINANCIAL CORPORATIONS

Fla., Lake Wales.—Lake Wales State Bank has made application for charter; capital $25,000; incorporators, T. L. Wetmore, C. L. Johnson, B. K. Bullard, A. C. Thullbery, G. V. Tillman and E. C. Stuart.

Fla., Melbourne.—Melbourne State Bank incptd.; capital $20,000. This succeeds Bills, Ewing & Nehf, Bankers. H. L. Ewing is Prest., F. L. Bills and G. H. Nehf, V.-Ps., and M. E. Marsh, Cash.

Fla., Tallahassee.—Southeastern Trust Co. has filed articles of incorporation; capital $200,000. Charles R. Rudisill, Prest.; R. C. Middleton, 1st V.-P.; A. E. Adamson, 2d V.-P.; J. S. Peterson, Secy., and Walter J. Bryson, Treas.

Ga., Nicholls.—Bank of Nicholls is chartered; capital $25,000; incorporators, C. C. Mertens of Waycross, W. B. Stone, E. Burkett and others of Nicholls.

Ky., Paducah.—Central Security Co., capital $10,000, incptd. by E. C. Phelps, T. A. Miller and B. B. Hook.

Miss., Columbus.—The Columbus National Bank is chartered; capital $100,000. B. A. Weaver, Prest.; C. H. Ayres, Cash. This succeeds the banking department of the Columbus Insurance & Banking Co.

Mo., Frankford.—Farmers and Merchants' Bank of Frankford is organized with $10,000 capital. Wm. Jones, Prest.; Wm. Kneisley, Cash.; L. T. Tucker, M. E. Paden, Wm. Johnston, A. E. Jackson, Ruben Lewellen and James Griffith. Business is to begin June 1.

N. C., Ayden. — Farmers and Merchants' National Bank has made application for charter; capital $35,000; organizers, W. M. McKinney, W. M. Edwards, G. W. Prescott, Exum Dial, J. J. Edwards and others.

N. C., Raleigh.—Raleigh Fire Insurance Co. recently organized with $50,000 capital and $12,500 surplus, has elected the following officers: A. L. Baker, Prest.; Charles W. Horne, 1st V.-P.; R. B. Whitley, 2d V.-P.; G. H. Andrews, Treas.; G. H. Dortch, Secy., and J. B. Cheshire, Jr., Atty.

N. C., Selma. — First National Bank of Selma is chartered; capital $30,000. W. E. Smith, Prest.; C. A. Fitzgerald and P. C. Worley, V.-P.s; G. W. Evans, Cash.; H. M. Fitzgerald, Asst. Cash. This is a conversion of the Bank of Selma.

Okla., Ralston.—First National Bank is chartered; capital $25,000; R. H. Ross, Prest.; L. R. Flint, Cash.

S. C., Spartanburg.—Universal Insurance Certificate Co. chartered; capital $10,000; will soon begin business; A. B. Calvert, Prest.; A. G. Blotcky, V.-P. and Gen. Mgr.; John B. Cannon, Secy., and J. W. Simpson, Treas.

Tenn., Athens.—Citizens' National Bank, which succeeds the Athens Bank & Trust Co., is chartered; capital $50,000; surplus $2500; G. F. Lockmiller, Prest.; J. W. Bayless, V.-P.; H. S. Moody, Cash. Business began May 6.

Tenn., Friendsville.—People's Bank, chartered and incptd., capital $7500, began business May 4; A. B. Ritchie, New Tazewell, Tenn., Prest.; J. H. Brunt, Jr., V.-P., and O. L. DeFoe, Cash.

Tenn., Nashville.—Tennessee Mortgage Co. has filed application for charter; capital $25,000; incorporators, O. B. Radebaugh, W. R. Maddux, G. C. Powell and T. E. Brandon.

Tex., Houston.—State Bank & Trust Co. will make application for charter and business is expected to begin early in June. Capital to amount of $100,000 has been subscribed. Among the directors are: A. J. Binz, March Culmore, Andrew Dow, W. H. Irvin, Dan Japhet, R. S. Jarrett and Sewall Myer.

Tex., San Antonio.—The Hibernia Mortgage Co. is chartered; capital $50,000. Incorporators: Thomas L. Conroy, Joseph P. Degnan, G. R. O'Shaugnessy, J. E. Taufer and Augustus McCloskey.

W. Va., Clarksburg.—Harrison County Savings & Loan Association, capital $195,000, is in ptd. by C. D. Elliott, Wilsonburg, W. Va.; L. G. Lockwood, C. E. Farr and J. S. Kyle of Clarksburg and A. C. McIntire of Hepzibah.

W. Va., Pax.—A new bank with $25,000 capital is being organized by T. J. Nelson of Roanoke, W. Va.; J. H. McQueen, Otis Lively, W. P. Painter and others.

Va., Norfolk.—Church Street Bank is chartered; capital $50,000 to $100,000. Benjamin Margolius is Prest.; Nathan Metzger, Secy. and Cash. (Previously mentioned.)

NEW SECURITIES

Ala., Calera.—Bids will be opened about June 15 for $7000 5 per cent. 20-year street and bridge bonds. T. W. Whatley is City Clk.

Ala., Irondale.—Election to vote on $20,000 municipal school-building bonds is to be held May 21. H. C. Gore is Mayor.

Fla., Arcadia.—Bids will be received until 2 P. M. June 8 by Board of Commrs., DeSoto county, A. L. Durrance, Clerk, for $210,000 6 per cent. 20-30-year $500 bonds Special Road and Bridge Dist. No. 1. Dated July 1, 1915. *Further particulars will be found in the advertising columns.*

Fla., Bartow.—Bids will be received until 2 P. M. June 15 for $256,000 6 per cent. Peace Creek Drainage Dist. bonds, dated Apr. 10, 1915, and maturing serially Apr. 10, 1921 to 1935, inclusive. Address Board of Supvrs. said district, 77 Main St. *Further particulars will be found in the advertising columns.*

Fla., Bartow.—Election was held in Special School Dist. No. 46, Polk county, May 18 to vote on $4000 6 per cent. school bonds. C. A. Parker is Secy. Board Public Instruction Polk county.

Fla., Bradentown.—It is proposed to call another election to vote on $130,000 Manatee county bonds for bridge across Manatee River. A recent election failed to carry. Address Wyman & Green, Bradentown.

Fla., Fort Meade.—Bids will be received until noon June 15 for $58,000 5 per cent. 30-year street-paving, electric-light, water and sewer bonds, dated May 1, 1915; maturity May 1, 1945; denomination, 57 $1000 and 2 $500. Bonds approved by Dillon, Thompson & Clay, Attys., New York city. J. J. Singleton is Secy. Board of Bond Trustees. *Further particulars will be found in the advertising columns.*

Fla., Ft. Myers.—The $177,500 Lee county road bonds now being offered will run 30 years; denomination $1000. Address County Commrs., H. A. Hendry, Clerk.

Fla., Mango.—$1500 school bonds are voted. Address Board of Education.

Fla., Miami.—Bids will be received until noon June 1 by K. E. Hall, Secy. Board Public Instruction, for $15,000 6 per cent. bonds Special Tax School Dist. No. 9, Dade county, dated May 1, 1915, and maturing $3000 May 1, 1928, and $3000 each year thereafter.

Fla., New Smyrna.—Election is to be held June 15 to vote on $42,000 school bonds Dist. No. 8. Address Board of Trustees.

Fla., Tallahassee. — $34,000 street-paving bonds were recently voted. Address The Mayor.

Fla., Tavares.—$3000 of the $15,000 6 per cent. 20-year $1000 bonds Special Tax School Dist. bonds offered May 10 have been sold. It is expected to sell the balance within a week. Wm. T. Kennedy is Supt. of Schools.

Fla., Winter Park.—$2000 town hall and jail and $3000 brick paving 7 per cent. bonds of the $12,000 issue recently voted are now being offered. Denomination $500. Dated June 1, 1915, maturing 1 bond annually. Address Finance Committee, Town Council, C. D. Powell, Chrmn.

Ga., Albany. — Bids were received until noon May 17 for $40,000 school building and $10,000 auditorium 5 per cent. 30-year bonds. Joseph Ehrlich is Chrmn. Finance Committee. Y. C. Rust is Clerk of Council.

Ga., Augusta.—Bill is to be introduced in the Legislature providing for an election to be held in Richmond county to vote on bonds for building for Tubman high school for girls. Address County Commrs.

Ga., Buena Vista.—Election will probably be held in Marion county to vote on $50,000 road and bridge bonds. N. W. Parker is Chrmn. Board of Commrs.

Ga., Dawson.—Election is to be held June 15 to vote on $20,000 water and fire department bonds. Address The Mayor.

Ga., Decatur.—Bids will be received until 8 P. M. May 21 for $50,000 5 per cent. water, school and sewer bonds; dated July 1, 1915; denomination $1000. G. H. Gibbs is City Clk.

Ga., East Point.—Election is to be held June 29 to vote on $30,000 school bonds. Address Board of Education.

Ga., Tallapoosa.—Steps are being taken to call an election to vote on $40,000 water-works and sewerage and $25,000 school 6 per cent. bonds. Address The Mayor.

Ga., Waycross.—Election will probably be held in Ware county to vote on not less than $250,000 road bonds. J. E. Wadley is Chrmn. of Board, Waycross.

Ky., Carlisle.—All bids received May 15 for $125,000 4½ per cent. 5-25-year $500 Nicholas county road bonds were rejected. They will be readvertised as 5 per cents, new bids to be opened May 25. Address Jos. W. Williams.

Ky., Covington.—An ordinance is to be prepared providing for the sale of $200,000 water-works bonds. Fred Schmitz is City Solicitor.

Ky., Georgetown.—$20,000 school bonds are voted. Address Board of Education.

Ky., London.—$100,000 Laurel county road bonds recently voted will be offered for sale May 20. Address County Commrs.

Ky., Stamping Ground. — $20,000 school bonds are voted. Address Board of Education.

La., Bastrop. — Bids are now being received for $55,000 5 per cent. 20-year $500 bonds School Dist. No. 2, Morehouse parish. L. H. Stevens is Secy.

La., Convent.—$200,000 St. James parish road bonds were recently voted. Address Police Jury.

La., De Ridder.—Bids will be received until 10 A. M. May 29 by Board of Sewer Commrs. First Sewerage Dist. for $41,000 5 per cent. 20-year $500 sewerage bonds, dated May 1, 1915, and due serially from May 1, 1916, to May 1, 1935. J. E. McMahon is Prest Sewer Board. *Further particulars will be found in the advertising columns.*

La., De Ridder.—Bids will be received until 10 A. M. May 29 by Mayor and Board of Aldermen for $24,000 5 per cent. 20-year $500 water bonds, dated May 1, 1915, and due serially from May 1, 1916, to May 1, 1935. J. M. Cox is Mayor. *Further particulars will be found in the advertising columns.*

La., New Roads.—Bids will be received until noon June 10 by Board of School Directors Pointe Coupee Parish School Dist. No. 10 for $21,000 5 per cent. building bonds.

La., Thibodaux.—Bids will be received until 10 A. M. June 10 by Chas. J. Coulon, Secy. Police Jury Lafourche Parish, for $105,000 5 per cent. 40-year $500 road bonds.

Miss., Clarksdale.—Election is to be called to vote on $150,000 of bonds for civic improvement, including city hall, water and light plant, sewerage and fire department. Address The Mayor.

Miss., Hattiesburg.—Bids will be received until June 7 for $5000 bonds Eatonville Consolidated School bonds, Forrest county. Address Board of Supervisors.

Miss., Meridian.—Election will be held in Lauderdale county June 10 to vote on $50,000 5½ per cent. road bonds Dist. No. 1; maturity 1926 to 1940, inclusive; denomination $500. T. L. Johnson is Chrmn. Board of Supvrs. Lauderdale county.

Miss., Pass Christian.—An ordinance is to be prepared providing for the issuing of $30,000 city hall and fire department bonds. Address Mayor Saucier.

Miss., Yazoo City.—Bids will be received until 8 P. M. June 14 by H. W. McCormack, City Clerk, for $100,000 5 per cent. 19-year average railroad bonds.

Mo., Joplin.—A letter to the Manufacturers Record from Board of Education denies report that bonds have been voted.

Mo., Springfield.—Election is to be held June 2, it is reported, to vote on $50,000 bonds for sewage-disposal plant and other city improvements. Address The Mayor.

Mo., St. Joseph.—Bids will be received until 2 P. M. June 7 for $325,000 4½ per cent. 10-20-year school bonds, being part of an issue of $65,000 school-building and $25,000 library-addition bonds recently voted; denomination—school building, $1000; library, $100; dated May 1, 1915. Remainder of school bonds will be offered not sooner than six months after June 7. Library issue will be offered at discretion of Board of Directors. A. L. Loving is Secy. School Dist.

Mo., Webster Groves.—A recent report stated that steps are being taken to call an election to vote on $15,000 school bonds. A letter to the Manufacturers Record says: "No bond issue in prospect." Roy L. Wilson is acting City Clerk.

N. C., Asheville.—$98,000 5 per cent. 20-year Buncombe county funding bonds have been purchased by C. N. Malone & Co., Asheville, at $850 premium, accrued interest and lithographed bond blanks.

N. C., Bakersville.—Mitchell county has sold $30,000 5 per cent. 30-year road bonds. D. W. Tipton is Chrmn. Road Commrs.

N. C., Carthage.—Election is to be held in Sandhills township, Moore county, June 15 to vote on $5000 5 per cent. 15-year $500 road bonds. J. C. B. Muse is Clerk County Commrs.

N. C., Elkin.—$35,000 30-year $1000 township road-improvement bonds were voted May 12; interest 5½ or 6 per cent.; dated June or July, 1915. Bids for same are now being received. Address J. F. Hendren, Atty. for Highway Com., Elkin, N. C.

N. C., Gastonia.—Bids will be received until 8 P. M. June 1 for $99,000 5 per cent. 30-year street and water-works bonds, dated May 1, 1914, maturing May 1, 1944. T. A. Ratchford is Clerk. *Further particulars will be found in the advertising columns.*

N. C., Goldsboro.—$9000 street-car, $6000 incinerator and $5000 street-paving bonds have been sold at $760.40 premium by Harris, Forbes & Co., New York.

N. C., Greensboro.—City will take steps to issue $59,000 school bonds. Address Board of Education.

N. C., Greenville.—Election is to be held June 7 to vote on $30,000 school bonds. J. B. James is Mayor.

N. C., Henderson.—$10,000 5 per cent. 30-year $1000 fire-equipment bonds were voted May 4, 1915. Dated July 1, 1915; maturity 1945. Date for opening bids not yet decided. Address B. H. Perry.

N. C., Hertford.—Bids will be received until 7.30 P. M. June 8 for $50,000 5 per cent. 30-50-year bonds as follows: Water-works, $17,000; sewerage, $13,000; electric-light system, $12,000; street paving, $8000. W. E. White is Mayor and W. C. Winslow, Clerk. *Further particulars will be found in the advertising columns.*

N. C., Mt. Gilead.—$20,000 Mt. Gilead Graded School Dist. bonds are voted. Address The Mayor.

N. C., Mount Olive.—Bids are being received for $6000 5 per cent. 20-year $500 school bonds. Address Albert S. Grady, P. O. Box 105, Mount Olive.

N. C., Newland.—Bids will be received until May 17 by P. Maclay Brown, Secy., Road Commrs. Avery county, for $150,000 5 per cent. 40-year road bonds.

N. C., Norlina.—Election is to be held June 15 (not June 12 as previously stated) to vote on $12,500 20-year $100 school bonds; interest not to exceed 6 per cent. Bids for same will be opened as soon after election as possible. P. M. Stallings is Chrmn. County Bond Commrs., Warrenton, N. C.

N. C., Plymouth.—$12,000 20-year electric-light bonds were defeated.

N. C., Raleigh.—Wake county has voted $50,000 5 per cent. 10-40-year $1000 Middle Creek township, Wake county, school bonds. Address Board of Education.

N. C., Roxboro.—$75,000 5 per cent. 40-year Roxboro township, Person county, road-improvement bonds have been voted. Denomination $500 and $1000. Date for opening bids not yet decided. A. M. Burns is Chrmn. and R. A. Burch, Secy., Board of County Supvrs.

N. C., Washington.—Bids will be opened June 15 for $35,000 municipal improvement bonds maturing Jan. 1, 1963. Address W. C. Ayers, City Clerk. *Further particulars will be found in the advertising columns.*

N. C., Yadkinville.—$60,000 Yadkin county 5¼ per cent. road bonds have been purchased at a premium of $100 by Sidney Spitzer & Co., Toledo, O.

Okla., Beggs.—Election to vote on $35,000 water-works and $8000 sewer bonds is to be held May 20. A recent report stated election was held May 8. Address The Mayor.

Okla., Bromide.—Election will probably be called to vote on $15,000 water-works and electric-light plant bonds. Address The Mayor.

Okla., Madill.—Election will be held in O'Dell Township, Marshall county, June 9 to vote on $138,000 road bonds. Address County Commrs. at Madill.

Okla., Stillwater. — Bids were received until 5 P. M. May 17 for $12,000 5 per cent. 20-year $1000 school building and equipment bonds. A. J. Hartenbower is Prest. Board of Education.

Okla., Supply.—$10,000 Supply School Dist., Woodward county, bonds were recently voted. Address Board of Trustees.

Okla., Pryor.—$12,000 high-school bonds are voted. Address Board of Education.

Okla., Tulsa. — $200,000 5 per cent. Tulsa county bridge bonds have been purchased at $2512.60 premium by G. R. McCullough, Prest. First National Bank, Tulsa.

S. C., Columbia.—Dispatch to Manufacturers Record says $250,000 5 per cent. 25-year school district bonds were purchased at $11,452.60 premium by Weil, Roth & Co., Cincinnati.

S. C., Greenville.—$60,000 courthouse, $30,000 jail and $10,000 refunding railroad 5 per cent. 30-year Greenville county bonds were purchased by A. G. Furman of Greenville at a premium of $3647. County expects to sell road bonds between now and July 1 next. W. H. Williams is Supvr.

S. C., Mt. Croghan.—Report that $40,000 courthouse bonds had been voted is denied in a letter to the Manufacturers Record.

S. C., Orangeburg.—Election is to be held May 25 to vote on $30,000 School Dist. No. 2 school bonds. Address Board of Education. A little later an election will be held to vote on $30,000 water, light and power plant bonds. Address The Mayor.

S. C., Oswego.—School bonds of Oswego Dist. No. 16 are being offered. Address F. W. Andrews.

S. C., Spartanburg.—Bids will be received until noon June 10 for $13,000 4½ per cent. 20-year $500 railway refunding bonds. Address J. F. Floyd, Mayor. *Further particulars will be found in the advertising columns.*

Tenn., Clinton.—$50,000 5 per cent. Anderson county school bonds, dated May 1, 1915, and maturing 1934 to 1939, were purchased May 10 by J. R. Sutherlin, Kansas City, at $375 premium; denomination $1000. J. H. Wallace is County Judge.

Tenn., Jasper.—Bill introduced in Legislature provides for an issue of $100,000 Marion county road bonds. Address County Commrs.

Tenn., Dyersburg. — $63,000 bonds Reeds Creek Drainage Dist., Dyer county, have been purchased by R. H. and G. A. McWilliams of Memphis and Chicago, contractors for the work.

Tenn., Knoxville.—Ordinance has been introduced in City Council providing for an issue of $50,000 30-year refunding bonds. Address The Mayor.

Tenn., Maryville.—Date for receiving bids for $55,000 5 per cent. 30-year water-works bonds is postponed from May 10 to May 18. Sam Evertt is Mayor.

Tenn., Milan.—$12,000 water and light improvement bonds recently voted are 15-year 6 per cents. Denomination $500. Dated June 1, 1915. Bids for same are now being asked. Address R. L. Coley, G. H. Sims, Joe Robinson and J. D. Denney.

Tenn., Morristown.—$150,000 5 per cent. $1000 Hamblen county road-improvement bonds are voted. Date for opening bids not yet decided. Address Commrs. Hamblen county.

Tenn., Nashville.—All bids received May 12 for $100,000 10-30-year Davidson County Asylum and State Fair bonds were rejected. W. M. Pollard is County Judge.

Tenn., Newport. — $200,000 20-year Cocke county road bonds are voted. Address County Commrs.

Tex., Angleton.—Alvin Road Dist., Brazoria county, has sold to Angleton parties at par and accrued interest $150,000 of road bonds. Address County Commrs.

Tex., Austin.—The bonds to be voted on June 9 are for the following purposes: Street improvements, $425,000; school buildings, $250,000; sanitary sewers, $50,000; automatic fire and police alarm system, $25,000. A. P. Wooldridge is Mayor.

Tex., Austin.—State Board of Education has purchased the following bonds: Lockney Independent Dist., $7500; Ovilla, $500; Pearsall, $7500; Somerville, $12,000; Three Rivers, $10,000; Cameron County School Dist. No. 4, $10,000; Cherokee No. 37, $1000; Fayette No. 58, $1500; Hidalgo No. 4, $38,500; Hidalgo No. 10, $25,000; Refugio No. 9, $15,000; Shelby No. 23, $1600; Tyler No. 17, $5000.

Tex., Ballinger.—Election is to be held May 20 to vote on $80,000 Ballinger School Dist., Runnels county, bonds. Address County Commrs.

Tex., Boerne.—$25,000 5 per cent. 20-40-year $1000 bonds Road Dist. No. 1, Kendall county, were recently voted. Address J. W. Lawhon, County Judge.

Tex., Cuero.—Election is to be held in Road Dist. No. 4, DeWitt county, to vote on $57,000 road bonds. Address County Commrs.

Tex., Cotulla.—$14,000 water-works bonds are reported sold to Denver parties. Address The Mayor.

Tex., El Paso.—$500,000 5 per cent. 20-40-year school bonds are voted. C. E. Kelly is Mayor and C. W. Bassett, City Clerk.

[For Additional Financial News, See Page 66.]

Merchants-Mechanics National Bank
South and Water Sts., BALTIMORE, MD.
DOUGLAS H. THOMAS, President.
JNO. B. RAMSAY, V.-P. and Chm. Bd. of Dir.
JOHN B. H. DUNN, Cashier.
Capital $2,000,000. Deposits $21,670,000
Surplus and Profits $2,175,000.
Accounts of Banks, Bankers, Corporations and Individuals solicited.
We invite correspondence.

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Largest and Strongest Surety and Casualty Company in the World.

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W. M. ADDISON, Cashier.

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BANKING AND TRUST department gives special attention to out-of-town customers' accounts.
TITLE DEPARTMENT examines and guarantees title to realty throughout Delaware.
REALTY DEPARTMENT has sites for manufacturing industries. Modern methods of management of property.
J. ERNEST SMITH, Pres. and Gen. Counsel.
WM. G. TAYLOR, Vice-Pres. and Treasurer.
HARRY W. DAVIS, Vice-Pres and Secretary.
W. W. PUSEY, 2d Title and Real Estate Officer.

The National Exchange Bank
OF BALTIMORE, MD.
Hopkins Place, German and Liberty Sts.
Capital, $1,500,000.
March 30, 1915, Surplus and Profits, $850,000.00.
OFFICERS.
WALDO NEWCOMER, President.
SUMMERFIELD BALDWIN, Vice-Pres.
R. VINTON LANSDALE, Cashier.
C. G. MORGAN, Asst. Cashier.
Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

The First National Bank
OF KEY WEST, FLA.
United States Depository and Disbursing Agent.
Capital - - - - - - - - - - - $100,000
Surplus and Undivided Profits - 40,000
A general banking business transacted.
Special attention given to collections.

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Attention is called to the exceptionally favorable location of
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Is produced under the supervision of men who have had a lifetime experience in the refining of asphalts. The production of asphalt is our chief business—not a side issue. Our product is not a residue of oil refining. Aztec is produced by careful distillation and under scientific and experienced supervision from straight Mexican maltha. It combines those prime requisites necessary to the success of a high-grade paving asphalt, viz.: high ductility, low susceptibility to extremes of temperature, low volatilization loss. Remember that Aztec is not produced by the admixture of various and inferior grades of asphaltic oils and residues, still butts, etc., with just a blend of Mexican oil in order to impart certain qualities which barely enable other asphalts to pass wide open specifications, yet lacking the requisite merits of a high-grade paving asphalt.

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See Sweet's Catalogue, Engineering Edition, for details and specifications of Aztec Products.

Tex., El Paso.—Commrs. El Paso county may be petitioned to call an election to vote on $1,000,000 road bonds.

Tex., Itasca.—$35,000 5 per cent. 10-40-year bonds Independent School Dist., dated June 1, 1910, have been purchased by J. L. Arlitt, Austin, Tex., for a Cincinnati firm.

Tex., Liberty.—$10,000 bonds Liberty School Dist. No. 12 are voted. Address Board of Education.

Tex., Lockney.—$7500 5 per cent. 10-40-year Lockney Ind. School Dist. $500 bonds were purchased at par and accrued interest by State Permanent School Fund. Wm. McGehee is Prest. School Board.

Tex., Kaufman.—$225,000 road bonds Justice Precinct No. 2, Kaufman county, were sold May 12 to Sline, Layden & Davis at par and accrued interest. James A. Cooley is County Judge.

Tex., Marlin.—Election is to be held June 15 to vote on $60,000 high school, $45,000 sewer and $15,000 water-works extension bonds. E. W. Bounds is Mayor.

Tex., McKinney.—No sale was made May 6 of the $665,000 5 per cent. 40-year Collin county road-construction bonds. H. L. Davis is County Judge.

Tex., Phelps. — School Dist. bonds voted last fall have been sold. Address Board of Trustees.

Tex., Roby.—The town expects to be incorporated and to issue bonds for sewers, paving and macadamizing streets and building a city hall. Address Town Commrs.

Tex., San Benito.—Steps are being taken to call an election to vote on sewerage bonds. Address The Mayor.

Tex., South Park (P. O. Beaumont).—Election is soon to be held to vote on $50,000 bonds for South Park Independent School Dist. Address Board of Trustees.

Tex., Victoria.—Commrs. Court Victoria County has authorized the establishment of another drainage district in the northeastern section of county and the issuing of $790,000 of improvement bonds.

Tex., Yorktown.—Election is to be held to vote on $10,000 Yorktown Independent School Dist. bonds. Address Board of Trustees.

Va., Dayton.—Bids will be received by J. L. Fuqua, Mayor, until 7 P. M. May 21 for $24,500 6 per cent. 10-20-year water, sewer and light bonds; denomination $500; dated June 1, 1915.

Va., Eastville.—Bids will be received until noon June 15 by Geo. T. Tyson, Clerk Board of Supvrs. Northampton county, for all or any part of $25,000 5-30-year $500 road bonds, dated June 30. *Further particulars will be found in the advertising columns.*

Va., Houston.—$50,000 Red Bank Magisterial Dist., Halifax county, road-improvement bonds are voted. Address County Commrs.

Va., Portsmouth. — All bids received for $250,000 4½ per cent. 20-year Norfolk county road bonds were rejected. Alva H. Martin is County Clerk.

Va., South Boston.—South Boston School Dist. proposes to issue $20,000 bonds to retire outstanding indebtedness. Address The Mayor.

W. Va., Falling Spring, P. O. Renick.—Bids will be received until noon June 15 for $4500 6 per cent. 10-20-year $100 road bonds. W. P. Lowe, Jr., is Chrmn. Bond Comm. *Further particulars will be found in the advertising columns.*

W. Va., Piedmont.—Bids will be received until June 1 by W. H. S. White, Secy. Board of Education, for $8000 5 per cent. 10-year school bonds; dated July 1, 1915.

W. Va., St. Mary's.—The election called to vote on $50,000 Pleasants county high school bonds was rescinded. R. L. Griffin is County Clerk.

W. Va., Wheeling.—$640,000 5 per cent. 34-year filtration-plant bonds defeated.

FINANCIAL NOTES

The Alabama Bankers' Association in annual convention at Birmingham elected officers for the ensuing year as follows: James Keith, Jr., of Anniston, Prest.; S. S. Broadus of Decatur, V.-P.; McLane Tilton of Fell City, Secy.-Treas, the latter being re-elected.

The Oklahoma State Bankers' Association in annual convention at Tulsa elected officers for the following year thus: T. H. Dwyer of Chickasha, Prest.; L. E. Phillips of Bartlesville, V.-P.; W. B. Harrison, Secy.; John A. Holt of Gage, Treas.

The Georgia Bankers' Association will hold its annual convention at Savannah on May 27, 28 and 29. Haynes McFadden of Atlanta is Secy.

Furniture Factory Resumes Operation.

The Harris-Brown Table Co. of Denver, Col., has taken over the long idle plant of the Tallahatchie Furniture Co. at Greenwood, Miss., and is now engaged in making extensive repairs and adjusting the machinery for economical operation. A high-grade kitchen cabinet with a table attachment will be manufactured from lumber obtained in the immediate vicinity of the plant.

OFFICE OF
VIRGINIA-CAROLINA CHEMICAL CO.

RICHMOND, Va., May 13, 1915.

WHEREAS, it has been the custom for twenty years to pay to the Preferred Stockholders their annual dividend of 8% in four quarterly installments of 2% each; and

WHEREAS, financial conditions following the European War were such that the Company's collections were greatly interfered with, wherefore the Board of Directors deemed it advisable, in order to conserve their cash, to defer the payment of two quarterly dividends; and

WHEREAS, the earnings of the Company for the year ending May 31st, 1915, will be largely in excess of the amount sufficient to justify the payment of the full dividend of 8%, but collections, while greatly improved, are still below normal;

Be it

RESOLVED, that a dividend of 4% be declared payable to Preferred Stockholders of record on May 31st, 1915, said 4% dividend to be payable in scrip maturing May 31st, 1916, bearing 6% interest from June 1st, 1915, with an option to the Company to redeem said scrip on January 1st, 1916, at par and accrued interest, intention to exercise said redemption to be given by written notice mailed to each scripholder as recorded on the books of the Company and by advertisement in three daily newspapers in New York and two in Richmond, Va., at least thirty days before January 1st, 1916.

S. W. TRAVERS, Treasurer.

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SATISFACTORY PAVEMENTS
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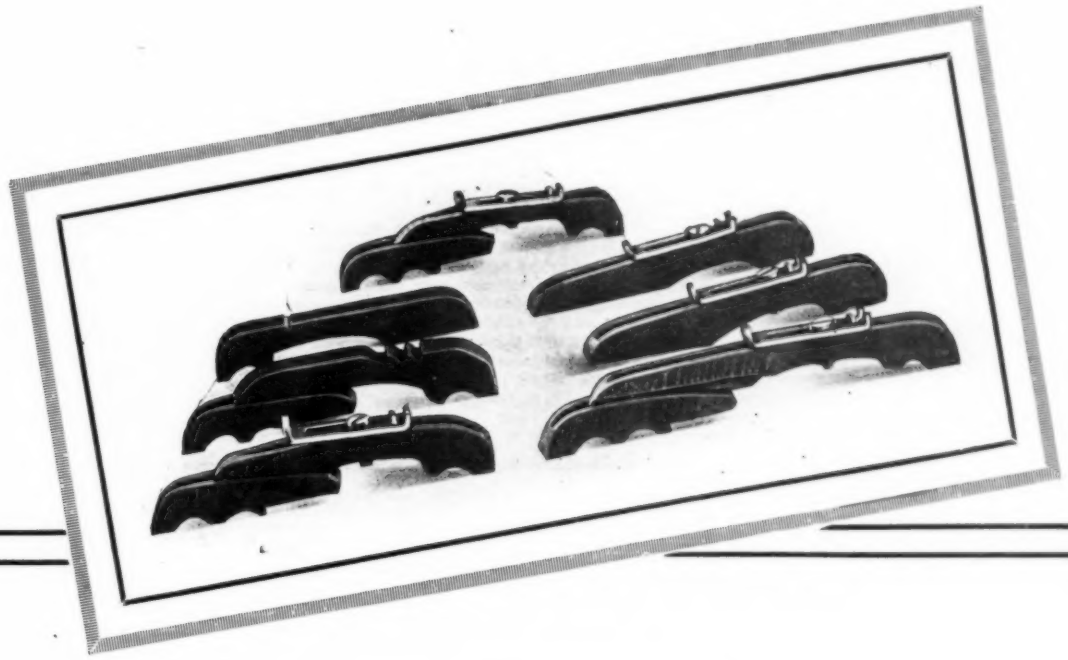

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Are made of Graphite Impregnated Wood, require absolutely no oil or grease, and, therefore, there is less material to be thrown away or sold as seconds because of grease spots on them. A saving right there in the price of oil or grease and the elimination of waste material from soiling. Give perfect lubrication. Do away with the old iron saddle and greasy wick, that works on the rolls and which also attracts dust and dirt. The best proof of the superiority of "Nigrum" Graphite Impregnated Wood Oil-less Saddles is found in using them. Send us one of the saddles you are now using and we will send samples for you to test.

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All Genuine Graphited "Oil-less Bearings" have always been made at Bound Brook, N. J., in the United States of America.

Classified Opportunities

MINERAL AND TIMBER LANDS WATER POWERS MISCELLANEOUS PROPERTIES

MINING PROPERTY FOR SALE.—Ruby and commercial corrundum deposits, china clay deposits, mica mines, copper and gold deposits. Anyone interested address Charley C. West, Box 115, Franklin, N. C.

5400 ACRES virgin hardwood timber land in East Tennessee; price $10 per acre. About 300-horse water-power, with 80 acres and improvements, on pike close to Birmingham, Alabama; price $10,000. Farm Realty Co., 828 Jefferson Co. Bank Bldg., Birmingham, Ala.

HAVE YOU A VALUABLE PROPERTY FOR SALE? Farm, timber land, mineral property or any other? We can help you get in touch with possible purchasers by an advertisement in these columns. For rates see head of this department.

CITY PROPERTY

FOR SALE—120 acres in center of city (population 5000); 1800 acres adjoining; magnificent for hotel, subdivision and development; famous resort, creek and springs. Address owner, Doak Aydelott, Tullahoma, Tenn.

LIMESTONE QUARRY

CEMENT LIME.—Fine quarry limestone, suitable for high-grade cement. Owner leaving State, and will sell this and other valuable property at sacrifice. B. H. Collier, Opelika, Ala.

MANGANESE ORE

MANGANESE ORE.—Eight hundred acres, located on railroad in Arkansas, offered for quick sale at $10,000. Address owner, Doak Aydelott, Tullahoma, Tenn.

CHINA CLAY PROPERTY

"CHINA CLAY."—I have for sale one of the finest china clay properties in this country, with machinery and equipment; the product is well and favorably known to the trade; splendid shipping facilities, with private track from works to station on main line. For prices and terms apply to E. J. Doris, Real Estate Agent, Leonard Bldg., Augusta, Ga.

COAL LAND

FOR SALE—Coal lands on railroad now building in Eastern Kentucky; 6350 acres; very accessible; coals low in sulphur and ash and high in heating value. Address P. O. Box 1035, Scranton, Penna.

COAL AND TIMBER LANDS

FOR SALE—Coal lands; lots ranging from 1000 to 30,000 acres, in West Virginia or Eastern Kentucky; also virgin timber lands in West Virginia and ready-cut timber. Address A. M. Foose, Box 673, Huntington, W. Va.

POLES AND PILING

I FURNISH chestnut poles any length, 20' to 75' oak piling any size. Locust post. Have a good stock of poles on hand at all times, and can make prompt shipments. When interested address E. L. Lewis, Relief, N. C.

FOR SALE — White cedar poles from twenty-five to sixty feet, with 6", 7" and 8" top. Walton & Nixon, Vilas, Fla.

CYPRESS LATHS

I WISH to sell the output of a cypress lath mill, about 80,000 daily capacity; lath to be cut 1½ in. full or 1⅝ in. if desired. Interested parties please address L. M. McEwen, Hampton Springs, Fla.

TIMBER

REAL TIMBER BARGAIN.—50,000,00 ft.; 70% N. C. pine, poplar and cypress, all original growth; on Southern R. R. in South Carolina. Liberal terms and low price. J. P. Mulherin (owner), Augusta, Ga.

TIMBER TRACTS WANTED

WANTED—PINE TIMBER.—Good yellow pine tracts cruising 5,000,000 to 50,000,000 feet. Send description and lowest price for cash to Lumberman, 14 Coosa St., Montgomery, Ala.

WANTED—To buy tract of first-class white oak timber land, near railroad or navigable stream. B. M. Harvard, 721 Maison Blanche, New Orleans, La.

TIMBER LAND

YELLOW PINE TIMBER FOR SALE.—One very large tract, two medium size and several small locations, all in Florida. Chas. B. Harman, Gainesville, Fla.

FOR SALE — Several desirable pieces of timber at bargain prices. If you are in the market and want a money-maker, write George J. Philp, Box 42, Oil City, Pa.

TIMBER. — 7650 acres of good Kentucky timber, containing 62,730,000 feet, with new railroad line now being constructed right through the tract. Will cut per acre, 4000 feet of chestnut oak and white oak, 1500 feet poplar 1000 feet sound pinny chestnut, 800 feet basswood, 650 feet hickory and 250 feet of black walnut. Price $22.50 per acre. Scherr, Morton & DeVan, Charleston, W. Va., Union Building.

RATES AND CONDITIONS

Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 25 lines. In estimating the cost, allow seven words of ordinary length to a line. *When the advertisement contains a number of long words, proper allowance should be made.* Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 18c. per line; 300 lines, 16c. per line; 500 lines or more, 15c. per line.

FARM AND TIMBER LANDS

640 ACRES alfalfa land, $12,000.
2400-acre plantation, $24,000.
12,000 acres cut-over land, $30,000.
13,000 acres 70,000,000 pine, $13 an acre.
29,000 acres for colonization, $5.50 an acre.
Write Secor, Selma, Alabama.

ORIGINAL and second-growth timbers in tracts containing from 500,000 to 50,000,000 feet, all situated on and near large trunk-line railroads. Prices right; terms liberal.

Farm lands below bargain prices, containing from 25 to 5000 acres. Virginian-Seaboard Realty Company, Alberta, Va.

NURSERY LAND

NINETY-FIVE ACRES at one hundred and seventy-five dollars per acre. One hundred and sixty acres at three hundred dollars per acre. Part adjoining and part in city and best nursery land. Guarantee lease of land at eight per cent. Will L. Vining, Austin, Tex.

FRUIT, FARM AND TRUCK LANDS

SAFETY FIRST.—If this is your motto, so far as investments are concerned, you should buy acres. Buy a farm or suburban acreage. You cannot lose, and profits are certain. Buy from us if you will, but buy, and remember its acres. The Osborne Land Company, "Farm Specialists," General Office, Bristol, Tenn.

THESE COLUMNS ARE CLOSELY READ BY PEOPLE for information of all kinds about Southern properties of every description. If you have a property of any kind that you want to dispose of, try an advertisement in these columns. Others have to their advantage. For rates see head of department.

ALABAMA

FOR SALE OR EXCHANGE—An old-time Southern plantation near Miss. line on Tombigbee River; 2600 acres of land; 1400 in cultivation, level, rich and productive. Fine old colonial home of 12 rooms. This is one of the best improved farms in the South. Price $30 per acre on any reasonable terms. Part exchange in city property considered. Bailey-Jones Real Estate & Ins. Co., 221 N. 21st St., Birmingham, Ala.

GOOD INVESTMENT.—We offer for sale 13,000 acres of best farm, fruit and stock-raising land in solid body, situated only a short distance from Bay Minette in Baldwin county, Alabama.

This land lies well, being level to slightly rolling, with several streams of running water through the tract, making it very desirable for colonization purposes.

This tract can be purchased for the low price of $7 per acre. Will arrange terms. T. L. Moore & Co., Room 109 Masonic Temple, Mobile, Alabama.

ARKANSAS

FOR SALE — By owner, in Southeastern Arkansas, 200 acres hardwood timber land, partly cut over, good fertile land, 2½ miles from railroad; 35 acres have been in cultivation, and there are 2 houses on it.

1440 acres cut-over but good level bottom land, suitable for grain, alfalfa, cotton, rice or stock farm. Price for both tracts, only $8.50 per acre. Max Fleischer, 258 Lewis St., Memphis, Tenn.

FLORIDA

FREE—William L. Larkin's booklet, "The Truth About Florida," with a six-months' subscription (at one-half regular rates) to The Indian River Farmer. Fruit growers, truckers, general farmers, folks interested in Florida, send 25c. to The Indian River Farmer, V-1, Vero, Fla.

200 ACRES fine citrus land, 4 miles from Fort Meade. The entire tract suitable for oranges and grapefruit. No waste land at all. Price for quick sale, $20 an acre. Write J. A. Newsome, Fort Meade, Fla.

FLORIDA ORANGE GROVE FOR $99.—Five minutes' walk from street car to Pensacola, a city of 30,000. 25 cents reserves a grove and brings full particulars with photo album of twenty colored views. Send today, as groves are limited. National Land Sales Company, Box 625, Pensacola, Fla.

CHOICE citrus and truck lands for sale in the Manatee River section of Manatee County, Florida; also water fronts. Send for soil survey report and views. Manatee River Land Co., Inc., 101½ Franklin St., Tampa, Fla.

HASTINGS LANDS FOR SALE. — 6840 acres in the township in which Hastings, Fla., is located; easy terms and cheap. Write owner for plat. 420 Walnut street S. E., Minneapolis, Minn.

BEST BARGAIN IN FLORIDA. — 15,000 acres, part in cultivation, 30 miles from Jacksonville, accessible by rail, water and automobile; clay subsoil; flowing artesian wells; pecan trees; must be sold; $4 an acre in bulk. L. S. Chadwick, Jacksonville, Fla.

FLORIDA.—8000 acres cut-over land lying between Lake Crescent, Lake Louise and Lake George, in Putnam and Volusia counties, traversed by main line of A. C. L. Railway; large portion especially adapted to orange and grapefruit culture; balance finest potato and general farming land; lands all 'round selling $20 to $100 per acre. My price, $10 per acre in a body; terms. Correspondence solicited. Chas. A. Brown, Jr., 30-31 Buckman Building, Jacksonville, Fla.

FINE BLACK MUCK AND MARL VEGETABLE AND TRUCKING GROUND, 230 acres, fronting 1½ miles on navigable canal with water rights; fronting on hard rock roads, R. F. D. route, at school, 1 mile from shipping station, thousands of acres tomatoes, eggplant, peppers and vegetables of all kinds adjoining; large grapefruit and orange groves all about. Will sell right price if taken quick, or will trade for unincumbered income-bearing property. Fine place for grove, stock farm, or very profitable vegetable raising. Now free from debt. G. L. Miller & Company, Miller-Mercer Bldg., 1106 Avenue C, Miami, Fla.

KANSAS

POULTRY AND STOCK FARM, 17 miles from Richmond, half mile flag station, one mile Hallsboro; new house; good buildings; chicken and turkey houses and runs; pigeon lofts. Address R. B. Basham, Topeka, Kans.

MARYLAND AND DELAWARE

FARMS ON EASTERN SHORE, Maryland and Delaware. Write for our booklet, "The Eastern Shore, the Wonderland of the East." Dixie Realty Co., Inc., Cambridge, Md.

MISSISSIPPI

8700 ACRES AT $3.95 PER ACRE.—Cattle Men. Colonizers. Investors.—Cut-over pine lands; estate being wound up; must be sold quick; splendid quality; lays well; 105 miles New Orleans; adjacent to I. C. R. R.; standard-gauge railroad through lands. Terms, cash or bankable paper. No swapping proposition. An exceptional opportunity for party with money. For plats and details address Central Realty & Ins. Agency, McComb, Miss.

NORTH CAROLINA

FOR SALE — 1000 acres Martin county; 3,000,000 feet merchantable pine timber on same; on public road; good location; fine soil; no better in North Carolina; worth $30 per acre; will take $12.50 on ten years' time. Also, 1200 acres swamp land, 3,000,000 feet of gum timber, in Washington county, $5.50 per acre, 10 years' time. Washington-Beaufort Land Company, Washington, N. C.

FOR SALE—A Farm—289 acres in the finest fruit section in North Carolina in the Iso-Thermal Belt. No frost line. Has two houses, about 500 fruit trees bearing—room for 5000 trees or more. A man can take the place and in six years it will pay for itself every year thereafter. Terms easy. Walter Brem, Latta Arcade, Room 205, Charlotte, N. C.

TEXAS

FOR SALE — 20-section ranch, Andrews county, Texas; 6 owned, 14 leased; well watered; $9.25 per acre; all rich, tillable land. Also, 1920-acre ranch, 4 miles county seat, 165 acres cultivation, orchard shallow water, $10 per acre; half cash; balance easy. A. N. Brown, Andrews, Texas.

EAST TEXAS FRUIT AND TRUCK LANDS, in large and small tracts; in the heart of the truck belt of East Texas. B. F. Rogers, Palestine, Texas.

VIRGINIA

VIRGINIA ESTATES. — Colonial homes, plantations, farms, suburban homes, Albemarle pippen orchards, timber lands. Write us for what you want. We have it. R. N. Flanagan & Co., Charlottesville, Va.

ESTABLISHED 1893.—From long experience we are thoroughly familiar with lands and values and have some genuine bargains listed. Tell us what you want and let us submit some special offerings. Southern Farm Agency, Lynchburg, Virginia.

FOR A CATALOGUE of the best properties of every description in Piedmont or Northern Virginia, and in the healthiest section of the United States, call on or write to A. W. Pulliam, Culpeper, Va.

676 ACRES, one mile from thriving town on the Virginian and Seaboard Air Line railways, on two public highways; 350 acres in high state of cultivation; 150 acres in bottom lands, and is considered very fine grasing for cattle. The character of the soil is gray and chocolate loam and well adapted to the growing of all kinds of crops, such as wheat, corn, grass, alfalfa and tobacco. Three nice dwellings containing seven rooms each, in excellent condition, watered by creek and branches. The entire farm is fenced in with net wire on cedar posts. Five tenant-houses, eight barns and many outbuildings. Large quantity of growing timber and large deposits of very fine gray granite. This is considered one of the best stock farms in the county. Price will be given on application to the Virginian-Seaboard Realty Co., Alberta, Va.

BUSINESS OPPORTUNITIES

$75 STARTS you in business, selling our adjustable form units for building any size and shape concrete culverts. Cheaper than any other forms. Frick Mfg. Co., Fricks, Pa.

FLORIDA ORANGE GROVE FOR $99.—Five minutes' walk from street car to Pensacola, a city of 30,000. 25 cents reserves a grove and brings full particulars with photo album of twenty colored views. Send today, as groves are limited. National Land Sales Company, Box 625, Pensacola, Fla.

HOTEL TO FINANCE.—We want to correspond with a man or men who can put $200,000 to $400,000 with $100,000 home money in a hotel in this city. No such here now. Nethery & Co. Austin, Texas.

WANTED—Office man with $10,000 cash to join with successful miller with like amount of cash to rebuild plant of Asheville Milling Company. Address Box 872, Asheville, N. C.

OWING to broken ties that would make residence painful to owner, will sell or exchange equity in attractive residence, small farm and store property in Virginia, or will lease. Address No. 1754, care Manufacturers Record, Balto., Md.

COTTON-OIL EXTRACTOR invented and patented by mechanical engineer experienced on oil presses; entirely new and scientific in principle; will give a greater yield of oil and reduce mill operation costs 75 per cent. or more; will work any kind of seed; desire to form company. Address No. 1757, care Manufacturers Record, Balto., Md.

HAVE A LARGE residential lot subdivision containing two thousand lots adjoining the city of Tampa, Fla. Am desirous of placing this subdivision in the hands of a large selling company, one who will get quick results; prices will be reasonable; improvements will be guaranteed and title perfect. Will pay a commission of 25 per cent. Thos. C. Hammond & Co., 4 and 5 Giddens Bldg., Tampa, Fla.

WE ARE CONSULTING ENGINEERS backed by a competent staff and a modern machine plant that can save you money if you are interested in designing or building special machinery, special tools, experimental work, models, etc. If you have patented an article which is not perfected, a consultation with our expert mechanician is at your command. We are giving attention to developing patents and marketing patented articles, especially labor-saving appliances. Our list of office appliances is available. We invite correspondence and will give estimates promptly and cheerfully. Specialty Manufacturing-Sales Corp., Norfolk, Va.

FOR SALE—Gas plant, having $600 per month income with fine margin of profit. Price $20,000, and is clear of debt. Might take some or all of pay in clear land or income property. Address No. 1746, care Manufacturers Record, Balto., Md.

COLLEGES AND SCHOOLS

RENSSELAER POLYTECHNIC INSTITUTE, TROY, N. Y.—Courses in Civil, Mechanical, Electrical and Chemical Engineering and General Science, leading to the degree of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), Chemical Engineer (Ch.E.), and Bachelor of Science (B.S.). Also special courses. Splendidly equipped new engineering laboratories. Send for catalogue to Registrar.

Classified Opportunities

INTEREST IN COAL-MINING COMPANY FOR SALE

AN UNUSUAL OPPORTUNITY to secure an interest in a splendidly equipped operation in the Pocahontas field, working the original No. 3 seam, 5 feet thick. The management is in the hands of the wealthiest and most successful operators in the field. Over $400,000 has been spent on the improvements, and the works have never lost a day for want of orders. The large stockholders and directors represent a tonnage of several millions annually and a wealth of many millions of dollars.

Particulars as to the directors and stockholders will be furnished to bona-fide interested parties.

The unusual conditions prevailing for the past year compels the owner (a non-resident) to sacrifice the stock, which will be sold for $50 per share, par value $100, and it cost that. Terms easy; $10 per share down and $10 per share per month. Certificates in one-share lots or any number. Brokers protected. **Address No. 1684, care Manufacturers Record, Balto., Md.**

WHERE TO SPEND THE SUMMER, MOUNTAIN—LAKE—SEASHORE

FOR RENT—Furnished summer cottage, 10 rooms, mile from station; stage passes door; barn, garden, if desired.

For Sale—Comfortable little home near Brandon, Vt.; never-failing water; barns; 2 acres ground. Summer Board.—Cottages on Lake Dunmore; fishing, boating, driving; $7 up. G. E. Selden, Brandon, Vt.

FOR RENT—Furnished summer cottage; 10 rooms; mile from station; stage passes door; barn, garden, if desired.

For Sale—Comfortable little home near Brandon, Vt.; never-failing water; barns; 2 acres ground. Summer Board.—Cottages on Lake Dunmore; fishing, boating, driving; $7 up. G. E. Selden, Brandon, Vt.

LUNENBURG, MASS. (R. R. Sta., Shirley).—For Sale—Summer home in pine woods; 10 rooms; open fireplaces; large stable; 45 acres or more (woodland, pasture, etc.). Reasonable to close an estate. J. S. Pray, 50 Garden St., Cambridge, Mass.

IN CHOCORUA, N. H., old house to let in beautiful location, June, July, August; also small camp. Apply to Miss Oliver, North Andover, Mass.

PATENTS FOR SALE

PATENT FOR SALE.—"Sanitary Siphon Head for Bottles"; no metallic contact; superior to all others and as cheap to manufacture as any on market. Want manufacturer to market for part interest or royalty. Address Mara, 1902 Rutger St., St. Louis, Mo.

PATENT ATTORNEYS

EUGENE C. BROWN, ENGINEER AND PATENT LAWYER. Suite 40 Victor Bldg., Washington, D. C. Graduate Engineer, Lehigh University. Member Bar U. S. Supreme Court. Patents and Trade-Marks. Inventions considered from an engineering standpoint to determine their breadth in covering equivalent constructions and extent of monopoly, and from a legal standpoint in framing adequate claims to protect such monopoly against infringement. Over 20 years devoted exclusively to patent matters; over 9 years Examiner in U. S. Patent Office. Patents secured; infringement suits conducted in all courts; reports upon validity, scope and infringement of patents; send sketch and description of invention.

VALUABLE INVENTIONS justify only best legal service. Consult Vernon E. Hodges, Attorney-at-Law, Barrister Bldg., Washington, D. C. Practice before the U. S. Supreme Court; all Circuit Courts; Courts of the District of Columbia, and the U. S. and Foreign Patent Offices exclusively. Continuous practice since 1886. Extensive experience with all classes of invention, representing lawyers, manufacturers and inventors in every State.

EDWARD BRUCE MOORE, sole offices, 159 Barrister Building, Washington, D. C. Head of United States Patent Office and Commissioner under Presidents Roosevelt, Taft and Wilson, and Assistant Commissioner under President McKinley. Do not waste money for patents procured by unknown and incompetent attorneys. They are worthless, and manufacturers and investors will not buy them nor do they fully protect your invention. Consult an expert known throughout the patent world. A known attorney's name on your patents adds value. Costs no more to be safe.

PATENTS.—**Herbert Jenner, patent atty. and mechanical expert, 606 F St., Washington, D. C. I report free of charge if a patent can be had and its exact cost. Send for circular.**

"WORDS OF VALUE TO INVENTORS" sent free; should be carefully read before applying for patents. John R. Woodworth, Registered Atty., Wardr Bldg., Wash., D. C.

PATENTS THAT PROTECT AND PAY. Advice and books free. Highest references. Best results. Promptness assured. Trade-marks registered.
Watson E. Coleman, Patent Lawyer,
624 F St., Washington, D. C.

MONEY IN PATENTS.—I secure your patent or return my fee. Manufacturers want Mills patents. Write for free booklet, "How to Get Your Patent and Make Your Profits Thereon." I assist in selling your patent. Mansell F. Mills, Registered U. S. Patent Atty., 252 Com. Nat. Bank Bldg., Washington, D. C.

PATENT YOUR IDEAS.—$9000 offered for certain inventions; book, "How to Obtain a Patent" and "What to Invent," sent free upon request; send rough sketch for free report as to patentability. We advertise your patent for sale at our expense. Chandlee & Chandlee, patent attorneys, 978 F St., Washington, D. C.

C. L. PARKER, Patent Lawyer, formerly member Examining Corps, U. S. Patent Office, 924 G St., Washington, D. C. Patents secured. Patent suits conducted. Reports on the patentability of inventions, the scope and validity of patents, and whether any process or machine infringes existing patents. Reference to prominent manufacturers and pamphlet of instrucion furnished upon request.

PATENTS secured or Fee returned. Send sketch for free report as to patentability. Guide book and what to invent, with valuable list of inventions wanted, sent free; $1,000,000 offered for inventions. Patents secured by us advertised free in World's Progress; sample free. Victor J. Evans & Co., 12 Ninth St., Washington, D. C.

INDUSTRIES WANTED

COTTON FACTORY

WANTED—Cotton factory; have splendid location; fat bonus to right party. Wm. Fitzsimmons, Tullahoma, Tenn.

MISCELLANEOUS

WATER and railroad facilities can be had here. Labor is plentiful. The best of schools, churches and shipping facilities. We have an attractive proposition to new industries. If interested, write us. Pocomoke City Board of Trade, Pocomoke City, Md.

LOCATE YOUR PLANT IN MARION, NORTH CAROLINA. Complete railway facilities. Raw material. Cheap fuel. Good labor. Ideal climate. For further particulars **address The Board of Trade, Marion, N. C.**

WAREHOUSE OR FACTORY BUILDING FOR LEASE

FOR LEASE—Warehouse or factory building (on two R. R. tracks, capacity 12 cars), 30,000 feet floor space; electric elevator, two large boilers, one large Corliss engine, air compressor, well, heaters, etc; 50,000 gallon steel tank; fine for mixed-feed plant, warehouse or general manufacturing purposes. Churchill & Co., Agents, 85 Madison, Memphis, Tenn.

FACTORY SITES

BALTIMORE FACTORY AND TERMINAL SITES.—Statement of Asa G. Candler, President The Coca-Cola Co.: "Investigation convinced us that Baltimore is not only the commercial metropolis for Southern trade, but that it affords shipping opportunities both by water and rail for domestic and foreign traffic superior to any of the great cities in any section of the United States." Locate in Baltimore and derive these advantages. We can provide accommodations to meet your requirements. Wm. Martien & Co., 3 N. Calvert St., Baltimore, Md.

INDUSTRIAL PLANTS FOR SALE

WHEEL AND MINE CAR PLANT

FOR SALE—In Birmingham, Ala., a car-wheel and mine-car plant, equipped with power plant, 75 K. V. A. generator, compressors, etc., foundry 80x170, machine and blacksmith shop 60x225, also office, fireproof pattern storage, pattern shop, bins, washroom, etc. Property just outside city limits on two railroads. Two spur tracks into yard. Low taxes, plenty of houses nearby for employes, and only one competitor in district. Suitable for any manufacturing purposes. Unusually low price; can make terms to right parties. Address No. 1756, care Manufacturers Record, Balto., Md.

FURNITURE PLANT

FOR SALE—Well-equipped furniture plant. Two ironclad buildings; 28,000 feet of floor space; machinery first-class condition. Located Sanford, N. C., on four railroads, siding on A. C. L. R. R. and right of way for siding to main line of S. A. L. R. R. Near A. & W. and Southern Ry. stations. Steam power used. Electric power available. Excellent opening. For further particulars address C. C. Cheek and S. P. Hatch, Receivers, Sanford, N. C.

FOUNDRY AND MACHINE SHOPS

FOR SALE—Machine shop and foundry; cheap; long time. Box 310, Memphis, Tenn.

FURNITURE-INTERIOR TRIM PLANT

FURNITURE, PANEL, INTERIOR TRIM PLANT.—For quick sale, the best factory in the South for manufacture of panel, furniture or interior trim. Special advantages in rates, taxes, labor, raw material, both yellow pine and hardwoods. Plant is new, fireproof, and insurance rate is 66 cents per $100. Sale price is less than half the cost. Write for particulars and photographs. J. P. Mulherin, Trustee, Augusta, Ga.

MATTRESS AND EXCELSIOR PLANT

FOR SALE—Well-established mattress and excelsior plant, situated in a splendid town, and excellent territory; running continuously 20 years; now doing a good business; health of owner only reason for selling. If interested write No. 1729, care Manufacturers Record, Balto., Md.

BRICK PLANT

FOR SALE—Brick plant in good territory; excellent clay and fair patronage. Write us for particulars. Abilene Press Brick Co., Abilene, Texas.

BRICK MANUFACTURING PLANT

FOR SALE OR LEASE on liberal terms, vitrified brick manufacturing plant located in the South; modern equipment; capacity 50,000 daily; lowest rates on all Southern points. Address Wm. Pannill, Agent, Heard Building, Jacksonville, Fla.

MODELS

MODELS MADE FOR INVENTORS.—General machine work. Designing and perfecting. Developing automatic devices and machinery. In a position to do all kinds of light tool and machine work. Prices reasonable. Estimates cheerfully given. Ideal Machine Works, 64 Ann Street, New York City.

MANTELS AND TILE FLOORS

NORTHCROSS WOOD MANTELS AND TILE FLOORS for every purpose. Sold direct from factory to your home. All orders receive prompt attention. Every contractor should have a copy of our new catalog showing the largest line in America. Mailed free. W. J. Northcross Mantel Company, 73 Union Ave., Memphis, Tennessee.

MEN WANTED

ARE YOU LOOKING FOR A GOOD MAN? There are a number looking for you. You can get together through an advertisement in these columns. Try it. For rates and other information see block at head of department.

WANTED.—I want salesmen in the largest and most important centers of South Carolina, Georgia, Florida, Alabama, Louisiana, Texas, Kentucky and Tennessee to sell Kron Automatic Springless Dial Scales. Write me. J. Kirk Rowell, 116 S. 6th St., Louisville, Ky.

WANTED—City manager of business ability, possessing knowledge of civil engineering, street, sewer, water and electrical construction. Apply Mayor, Thomasville, N. C.

FARM AND TIMBER SALESMAN to work Northern and Western territory. Have good proposition to offer right man. References given and required. Chas. B. Harman, Gainesville, Fla.

IF QUALIFIED for executive, technical, mechanical, professional or administrative position carrying salary between $2500 and $12,000, write undersigned counsel, through whom strictly confidential preliminaries will be negotiated for important appointments. Send address only for prefatory details. R. W. Bixby, Lock Box 134-J4, Buffalo.

EFFICIENCY SOCIETY OF AMERICA, Pittsburgh, Pa., require State secretaries and special organization agents throughout the Southern and Southwestern States. Liberal compensation arranged.

REPRESENTATIVES to cover territory more thoroughly. Boiler-room necessities; liberal commissions; old-established house. Apply by letter. H. F. Maurel, 534 West 22d St., New York City.

WANTED—An experienced repair mechanic on steam shovel and mill machinery. State references, where worked last, wages expected, married or single, and full particulars. Apply immediately by letter. Crimora Manganese Corporation, Crimora, Va.

PARTNER WANTED

WANTED—Partner with $4000 to install electric-light plant in growing town in Florida. Box 614, Lakeland, Fla.

FOREIGN AGENCIES WANTED

J. A. VASQUEZ, Manufacturers' Agent, P. O. Box 1099, 80 Cuba St., Havana, Cuba.—Takes charge of representing American manufacturers in the lines of hardware, plumbers and specialties. Has long experience in the business, and is in touch with the best firms of Cuba and Porto Rico.

AGENCIES WANTED

MANUFACTURERS of power, heating, ventilating and general equipment have a big advantage if their salesmen are engineers. We would be glad to represent one or more high-class concerns in Atlanta and adjacent territory. Address No. 1760, care Manufacturers Record, Balto., Md.

WANTED—Sales agency for all lines pertaining to builders' specialties; East Tennessee as territory; can furnish satisfactory references to interested concern; modern warehouse facilities. Address Daniel Briscoe, Jr., 325-327 State St., Knoxville, Tenn.

SITUATIONS WANTED

MARRIED MAN, 33 years of age, with 13 years of experience as Supt., manager and traveling salesman with large veneer package and lumber plants, desires to locate in any responsible position where we can have pleasant home for myself and wife; best of reference. Address No. 1759, care Manufacturers Record, Balto., Md.

EXPERIENCED and efficient bookkeeper and systematizer, now employed but desires change, would like to figure with responsible wholesale concern with a view of forming connection; considerable experience with credits and collections; references exchanged. Address No. 1758, care Manufacturers Record, Balto., Md.

WANTED—Position in any business where can be made available; experience of over 35 years in the building business; both field and office work, architecture, estimating, supervising, contracting, bookkeeping, office system, etc.; capable of filling position of responsibility and executive. Correspondence solicited. W. E. Speir, 1859 California St., Washington, D. C.

ELEC. CONTRACTOR wants position with some power company or large contracting firm; college graduate in Elec. Engineering with five years' contracting experience; can furnish the best of reference as to habits and ability. Address No. 1755, care Manufacturers Record, Balto., Md.

POSITION DESIRED as superintendent or manager in a factory manufacturing chairs or furniture specials; 23 years' experience in all its branches, from log to marketing the goods. Can furnish the very best of references as to habits, ability and integrity, and also as a producer. Age 43. Investigate. Address No. 1752, care Manufacturers Record, Balto., Md.

LETTERHEADS, PRINTING, ETC.

LITHOGRAPHED Letterheads; at low cost—5000, $2 per M; 10,000, $1.75 per M; 25,000, $1.40 per M. Nominal engraving charge on 1st order; quality guaranteed. Write for samples on your own letterhead. Monasch Lithographing Co. (Dept. E), Minneapolis, Minn.

EMBOSSED LETTERHEADS, TOKYO BOND PAPER, 1000, $4.00. Envelopes to match, $4.00 for the 1000. We use 20-lb. to the ream paper. Send for samples. Turner & Dunlap, Wilkes-Barre, Pennsylvania.

5000 LITHOGRAPHED letterheads, $13.75; good bond paper; quality guaranteed; no charge for engraving; samples upon request. The Art Press, Dept. A, Lima, Ohio.

ATTRACTIVE STATIONERY at moderate prices. Send for our free sample booklet "M" and price-list of effective, economical letterheads. Commercial Art Press, Beaver Falls, Pa.

REBUILT TIME AND COST KEEPING RECORDERS

TIME CLOCKS, Dey and International bichrome machines, calculagraphs, cost-keeping recorders; everything in time clocks and supplies. R. G. Watkins, 9 Church St., N. Y. City.

MACHINERY AND SUPPLIES

GRANULATED CORK

FOR SALE—50 tons pure granulated cork, cheap. Apply New Orleans Cold Storage & Warehouse Co., Ltd., New Orleans, La.

NAILS

NEW NAILS.—Have several hundred kegs of various sizes of cut and wire nails. Attractive price in any quantity. Address L. A. Green, 1512 First Natl. Bank Bldg., Pittsburgh, Pa.

PROPOSALS

BOND ISSUES BUILDINGS PAVING GOOD ROADS

PROPOSALS FOR STEEL REINFORCING Bars, Stay-bolt Iron, Bolts, Rivets, Stovepipe, Brass Tubing, Brass Pipe Fittings, Brass Grommets, Hammers, Files, Chisels, Taps, Reamers, Stocks and Dies, Bits, Twist Drills, Blacksmith's Drills, Carpenter's Braces, Adzes, Axes, Scythe Blades, Saws, Machetes, Rakes, Vises, Marine Lights, Oars, Oarlocks, Cocks, Air-brake Hose, Leather Belting, Window Glass, Steel Filing Cabinets and Bookcases, Oak Desks, Wicker Chairs, Aluminum Sulphate, Unslaked Lime, Coal Tar, Pitch, Lampblack, Black Asphaltum Varnish, Japan Drier, Paints, Shellac, and Varnish Remover. Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10.30 A. M. June 5, 1915, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and general information relating to this Circular (No. 928) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La., and 1086 North Point Street, San Francisco, Cal.; also from the U. S. Engineer Offices in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala., and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash. F. C. BOGGS, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

PROPOSALS FOR THE PURCHASE OF Miscellaneous Iron and Steel Scrap and Scrap Rail offered for sale by The Panama Canal and which is no longer needed.—Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10.30 A. M. June 7, 1915, at which time they will be opened in public, for purchasing the above-mentioned articles. Blanks and general information relating to this Circular (No. 927) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La., and 1086 North Point Street, San Francisco, Cal.; also from the U. S. Engineer Offices in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala., and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.. F. C. BOGGS, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

DEPARTMENT OF THE INTERIOR, Washington, D. C., May 13, 1915. Sealed proposals, in duplicate, will be received at this Department until 2 P. M. Tuesday, June 8, 1915, and then opened, for the furnishing of stokers, coal and ash handling machinery, and other appliances, for the power-house of the Government Hospital for the Insane, Anacostia, D. C., in accordance with plans and specifications, copies of which may be obtained upon application to the chief clerk of the Department. The right is reserved to reject any and all bids, or to accept or reject any part thereof in the discretion of the Department. Proposals should be securely enveloped, marked "Proposal for stokers, etc., Government Hospital for the Insane," and addressed to the Secretary of the Interior. BO SWEENEY, Assistant Secretary.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., May 5, 1915. Sealed proposals will be opened in this office at 3 P. M. June 14, 1915, for the construction, complete (including mechanical equipment), of the attendants' quarters, disinfecting shed, oil house, wharf, etc., for the quarantine station at Tampa Bay, Fla. The buildings are one-story frame structures, with a total ground area of 7600 square feet. Drawings and specifications may be obtained from the custodian at Tampa Bay, Fla., or at this office, in the discretion of the Acting Supervising Architect. JAS. A. WETMORE, Acting Supervising Architect.

U. S. ENGINEER OFFICE, Wilmington, N. C., April 26, 1915. Sealed proposals for furnishing and delivering about 19,700 tons of crushed stone will be received at this office until 1 P. M. May 26, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engrs.

U. S. ENGINEER OFFICE, Wilmington, N. C., April 26, 1915. Sealed proposals for furnishing and delivering about 22,000 barrels of Portland cement will be received at this office until 12 M. May 26, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engrs.

$22,000 6% Bonds

Bids will be received until 11 o'clock May 24, 1915, by the Board of Drainage Commissioners of New Hanover County Drainage District No. 1 for $22,000 6 per cent. Drainage Bonds. No bid less than par can be considered.

Certified checks in the amount of $500 must accompany each bid. For particulars write

M. F. H. GOUVERNEUR,
Sec. Board of Drainage Commissioners,
Wilmington, N. C.

PROPOSAL ADVERTISING INFORMATION

RATE: 20 cents per line per insertion.
PUBLICATION DAY: Thursday.
FORMS CLOSE 9 A. M. Wednesday. Copy received later cannot be published until issue of following week.
NIGHT LETTER: When too late to send copy by mail to reach us by 9 A. M. Wednesday, forward by night letter.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:
Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—20 cents per line per insertion.

$41,000 5% Bonds

The Board of Sewer Commissioners of the First Sewerage District of the Town of De Ridder, Louisiana, will receive sealed bids until 10 A. M. May the 29th, 1915, for $41,000 of 20-year 5 per cent. sewerage bonds in $500 denomination. Dated May the 1st, 1915, and due serially from May 1, 1916, to May 1, 1935. Interest payable annually. No bids will be accepted for less than par value. The right to reject any and all bids is hereby reserved. Each bid must be accompanied by a certified check for $500.

J. E. McMAHON,
Prest. Sewer Board,
De Ridder, La.

$4500 6% Bonds

FALLING SPRING CORPORATION ROAD BONDS.

Renick, W. Va.

Sealed proposals will be received by the Council of the Town of Renick, at their office, up to noon on the 15th day of June, 1915, for the purchase of forty-five six per cent. 20-year coupon bonds, optional after 10 years, interest payable annually on the first day of July. Bonds to be in denomination of $100 each.

Each bid must be accompanied by a certified check of $100 and addressed to the undersigned.

The right to reject any and all bids is reserved.

W. P. LOWE, JR.,
Chairman of Bond Committee.

$16,000 6% Warrants

Perry, Fla., May 7, 1915.

Under and by virtue of an Act of the Legislature of the State of Florida, approved May 6, 1915, and by order of the Board of Public Instruction of Taylor County, Florida, passed May 3, 1915, notice is hereby given that said Board of Public Instruction will issue and offer for sale on Monday, June 7, 1915, $16,000 of interest-bearing coupon county school warrants in denominations of $100 to $5000, to suit purchaser, interest at six per cent., payable semi-annually. Sealed bids will be received up to 12 o'clock M. of the above date. The Board reserves the right to reject any and all bids. For further information address F. S. Jackson, Secretary, Perry, Fla., to whom bids may be sent.

Done and ordered by the Board in regular session the 3d day of May, 1915.

J. M. SHEFFIELD,
Chairman.

Attest:
F. S. JACKSON,
Secretary.

$50,000 5% Bonds

Sealed bids will be received by the Board of Town Commissioners of Hertford, North Carolina, up to 7.30 o'clock P. M. on June 8, 1915, and then opened, for the purchase of bonds of the Town of Hertford in the sum of fifty thousand dollars ($50,000), said bonds to bear interest at the rate of 5 per cent. per annum, payable semi-annually on the 1st day of June and on the 1st day of December, respectively, of each year, which interest shall be evidenced by coupons attached to said bonds. Said bonds will mature ten thousand dollars thirty years from date of issue, ten thousand dollars thirty-five years from date of issue, ten thousand dollars forty years from date of issue, ten thousand dollars forty-five years from date of issue, and ten thousand dollars fifty years from date of issue. The purposes for which said bonds are issued are as follows: For water-works, seventeen thousand dollars; for sewerage system, thirteen thousand dollars; for electric-light system, twelve thousand dollars; for street paving, eight thousand dollars. All bids should be addressed to the Board of Town Commissioners of Hertford, North Carolina, and must be accompanied by a certified check, payable to their order, in the sum of five hundred dollars. The bonds are to be prepared and furnished at the expense of the purchaser. The Town of Hertford reserves the right to reject any and all bids.

For further information apply to W. E. White, Mayor, or W. C. Winslow, Clerk, Hertford, North Carolina.

W. E. WHITE, Mayor.
W. C. WINSLOW.

$24,000 5% Bonds

The Mayor and Board of Aldermen of the Town of De Ridder, Louisiana, will receive sealed bids until 10 A. M. May the 29th, 1915, for $24,000 of 20-year 5 per cent. water bonds in $500 denomination. Dated May 1, 1915, and due serially from May 1, 1916, to May 1, 1935. Interest payable annually. No bids will be accepted for less than par value. The right to reject any and all bids is hereby reserved. Each bid must be accompanied by a certified check for $300.

J. M. COX,
Mayor of the Town of De Ridder, La.

$58,000 5% Bonds

Fort Meade, Fla., May 12, 1915.

The Board of Bond Trustees of Fort Meade, Fla., will, up to and until noon of June 15, 1915, receive bids for $58,000 issue of Street Paving, Electric Light and Water and Sewer Bonds. Bonds mature May 1, 1945. Interest at the rate of 5 per cent. per annum, payable semi-annually. Right is reserved to reject any or all bids. No bids considered unless accompanied by certified check for $500 as evidence of good faith.

For further information address J. J. Singleton, Secy., Fort Meade, Fla.

$50,000 5% Road Bonds

OF DE WITT COUNTY ROAD DISTRICT NO. ONE.

Cuero, Texas.

Sealed proposals will be received by the Commissioners' Court of De Witt County, Texas, in the City of Cuero, Texas, until June 1, 1915, at 2 o'clock P. M., for the purchase of $50,000 road bonds of Road District No. One of De Witt County, Texas.

Said bonds will bear date March 1, 1915, of the denomination of $500 each, bearing 5 per cent. interest, payable semi-annually on the first days of September and March of each year. Said bonds mature forty years from their date, but may be redeemed at any time after twenty years. Principal and interest payable at Cuero, Texas; Austin, Texas, or New York City, New York, at the option of the holder.

All bids must be addressed to "Commissioners' Court of De Witt County, Cuero, Texas," and a certified check for $750 must accompany bid. The right to reject any and all bids is reserved.

R. J. WALDECK,
County Judge.

Sale of $25,000 Northampton County (Virginia) Road Bonds

By order of the Board of Supervisors of Northampton County, Virginia, sealed bids will be received by Geo. T. Tyson, Clerk of the Board of Supervisors of Northampton County, Virginia, until Tuesday, June 15, 1915, at 12 o'clock M., for all or any part of $25,000; said bonds to be in denominations of $500 each, and payable thirty (30) years from date, with coupons attached for the semi-annual payment of interest, which said bonds shall be made redeemable at the discretion of said Board at any time after the expiration of five (5) years from date of issue. Said bidder or bidders shall state at what rate of interest they will furnish said money; said bonds to be dated and money furnished June 30, 1915, and interest to be paid at the office of the Treasurer of said county. The right is reserved by said Board of Supervisors to reject any or all of said bids. These bonds are to be issued for permanent road improvement in Eastville Magisterial District, pursuant to an Act of the General Assembly of Virginia, entitled "An Act to authorize Northampton county to borrow money and issue bonds for a sum not exceeding $50,000 for the purpose of building, improving and maintaining the public roads in Eastville Magisterial District, in said county," approved March 15, 1915; but the full faith and credit of the entire county of Northampton is to be pledged for their payment, and a tax to be levied upon the property in said Eastville District to pay the interest on them and create a sinking fund sufficient in amount to pay them upon maturity.

GEO. T. TYSON,
Clerk of the Board of Supervisors
of Northampton County, Eastville, Va.
May 12, 1915.

$99,000 5% Bonds

Gastonia, N. C.

Sealed proposals will be received by the Mayor and Board of Aldermen of Gastonia, North Carolina, on Tuesday, June 1, 1915, 8 o'clock P. M., for $99,000 of bonds of the City of Gastonia. (Street improvements and extension of water-works system.) Bonds dated May 1, 1914; payable May 1, 1944. Principal and semi-annual interest payable at National Park Bank, New York City. Approving opinion of Storey, Thorndike, Palmer & Dodge of Boston will be furnished by city.

Bonds ready for delivery and are neatly lithographed, $50,000 in denominations of $1000 each and $49,000 in denominations of $500 each.

Financial Statement.

Assessed valuation (1914), $3,988,686.
Estimated, $12,000,000.

Bonded debt (including this issue)	$349,000
Less water debt	118,000
Net	$231,000

Unlimited tax levy provided for payment of interest and creating sinking fund for retirement of bonds at maturity. Proposals must be accompanied by certified check on some National Bank for 2 per cent. of amount of bid.

For further particulars address

T. A. RATCHFORD, Clerk.

$13,000 4½% Bonds

Spartanburg, S. C.

State of South Carolina, County of Spartanburg.

Sale of Thirteen Thousand Dollars Refunding Coupon Bonds of the City of Spartanburg.

NOTICE.

Sealed bids will be received up to 12 o'clock noon on the 10th day of June, 1915, by the City Council of Spartanburg, at its office in the City of Spartanburg, for the purchase of thirteen thousand dollars, or any part thereof, of refunding coupon bonds of said city. Said bonds payable in twenty years after date, and to draw interest at the rate of 4½ per cent. per annum from their date, interest payable semi-annually on the first days of January and July of each year thereafter, principal and interest to be payable at the National Park Bank, New York. A certified check without limitation by a responsible bank for 5 per cent. of the amount of the bonds bid for, payable to the order of the City Treasurer, is required to accompany each bid. The city reserves the right to reject any or all bids.

J. F. FLOYD,
Mayor.

Attest:
T. J. BOYD,
City Treasurer.

$256,000 6% Bonds

Bartow, Fla.

The Peace Creek Drainage District will, on the 15th day of June, 1915, at 2 P. M., at the office of the said district, 77 Main street, Bartow, Florida, offer for sale Drainage Bonds in the sum of $256,000, dated April 10, 1915, and maturing serially as follows: $10,000 April 10, 1921; $12,000 April 10, 1922; $12,000 April 10, 1923; $13,000 April 10, 1924; $14,000 April 10, 1925; $15,000 April 10, 1926; $16,000 April 10, 1927; $17,000 April 10, 1928; $18,000 April 10, 1929; $19,000 April 10, 1930; $20,000 April 10, 1931; $21,000 April 10, 1932; $22,000 April 10, 1933; $23,000 April 10, 1934; $24,000 April 10, 1935, bearing interest at the rate of 6 per cent. per annum, payable semi-annually. Reserving the right to retain $50,000, or any portion thereof, of said bonds, the proceeds of the sale of which may be found unnecessary to complete the plan of reclamation of the said district.

Certified check in the sum of $5000 must accompany each bid as a guarantee of faithful performance. The right to reject any or all bids is hereby reserved. Data furnished on request.

R. C. HATTON,
E. L. MACK,
LYCURGUS BURNS,
Board of Supervisors.
BENJ. GETZOFF,
Asst. Secy.
C. G. ELLIOTT, Chief Engineer,
McLachlen Bldg., Washington, D. C.

$20,000 6% Bonds

West Point, Miss., May 7, 1915.

Sealed bids will be received up to 2 o'clock P. M. June 7, 1915, by the Board of Supervisors of Clay County, Mississippi, for the issue of $20,000 6 per cent. District Two Road Bonds of said county, interest payable semi-annually in New York. Said bonds are exempt from taxation. Certified check for $250 to accompany each bid. The Board reserves the right to reject any or all bids.

L. J. HOWARD,
Clerk of the Board of Supervisors.

$35,000 Bond Sale

Washington, N. C.

The city of Washington, North Carolina, will open bids on June 15, 1915, for the sale of $35,000 Municipal Improvement Bonds, interest payable semi-annually on the first days of July and January. Bonds mature January 1, 1963. Assessed valuation, $2,700,000; actual estimated valuation, $5,000,000; bond debt, $370,000.

Address all bids to W. C. Ayers, City Clerk. For further information apply to H. C. Carter, Jr., City Attorney.

PROPOSALS

SEWERS WATER-WORKS ELECTRIC LIGHT PLANTS BRIDGES

Water-Works Bonds For Sale

The North Augusta Water & Gas Co. first mortgage 6 per cent. 30-year gold bonds. Earnings of company at present double interest charge on bonds and increasing each year. For full information apply to

JAMES U. JACKSON, Prest.,
Augusta, Ga.

$210,000 6% Bonds

Arcadia, Fla.

Notice of Sale of Bonds for Special Road and Bridge District No. 1 in DeSoto County, Florida.

Notice is hereby given that the Board of County Commissioners of the County of DeSoto, State of Florida, will receive sealed bids at the Clerk's office in the Court House at Arcadia, Florida, until 2 o'clock in the afternoon on the 8th day of June, 1915, from all purchasers desiring to purchase bonds of Special Road and Bridge District No. 1 in DeSoto County, Florida, authorized and issued by said Board of County Commissioners for said Special Road and Bridge District No. 1 in the sum of $210,000.

The entire bond issue of $210,000, or any part thereof, is hereby offered for sale, the same being in denominations of $500 each, bearing date July 1, 1915, and maturing either 20 or 30 years after date and bearing interest at the rate of 6 per cent. per annum, with the usual interest coupons covering same attached thereto, interest payable semi-annually, and interest and principal payable at the office of, and to, the County Treasurer, Arcadia, DeSoto County, Florida.

The said Board of County Commissioners of DeSoto County, Florida, reserves the right to sell the whole or any part of said bond issue and also to reject any or all bids. Each bidder is required to furnish a certified check, payable to the County Treasurer of DeSoto County, Florida, accompanying bid, for 2 per cent. of the amount of his bid as evidence of good faith. Checks of the successful bidder will be applied on purchase, or, in case of his failure to comply with his agreement of purchase, then and in that event said check and the amount thereof shall be forfeited to the said County of DeSoto as liquidated damages, and said check shall be cashed and the amount thereof received by the County Treasurer immediately upon the acceptance of bid of successful bidder. Each bidder will state the time when he will comply with his bid, and shall also specify whether the bid is in current money or in evidences of indebtedness against said County of DeSoto. Checks of all unsuccessful bidders will be returned to them.

This notice is given by order of the Board of County Commissioners of DeSoto County, Florida, and dated this 13th day of May, A. D. 1915.

A. L. DURRANCE,
Clerk of said Board and of DeSoto County, Florida.

[Seal.]

To Road Contractors

Lake Charles, La.

Sealed bids will be received by the Police Jury at the office of the Highway Department, Lake Charles, La., until 11 o'clock A. M. June 1, 1915, for grading and graveling approximately two miles of road from the intersection of Ryan and Alvin Streets, Lake Charles, La., to the south end of the proposed Calcasieu River Bridge. A deposit of $5 is required for copies of plans and specifications. The right is reserved to reject any or all bids.

E. C. HOUSE,
Clerk to the Police Jury.
FRED SHUTTS,
Parish Engineer.

Street Paving

Lake City, Fla.

Sealed proposals will be received until May 31, 1915, for paving certain streets in Lake City, Florida, wherein all standard paving surfaces will be considered and wherein an expenditure of Twenty Thousand Dollars is contemplated. Copies of instructions to bidders, general stipulations and specifications, forms of proposal, contract and bonds will be furnished upon application to the undersigned, accompanied by one dollar.

BOARD OF PUBLIC WORKS,
Lake City, Florida.
J. W. LAYNE, Secretary.
A. S. MILLER, Engineer.

Street Paving

Columbia, Tenn.

Sealed bids for about 8900 sq. yds. of asphalt-concrete on macadam base; also for about 14,200 sq. yds. of asphalt-macadam mixed method on macadam base; also for about 3800 running feet of combined curb and gutter, will be received by the Recorder of Columbia, Tennessee, at City Hall, on May 25, 1915, at eight (8) o'clock P. M. Contractor to surface and grade roadbed. Sample of asphalt to accompany each bid; also certified check for 10 per cent. of amount of bid as a guaranty of good faith. Contractor can bid on several brands of asphalt. City reserves the right to reject any and all bids.

By order of Board of Mayor and Aldermen of City of Columbia, Tennessee.

J. M. DEDMAN, Mayor.
E. E. ERWIN, Recorder.

Street Paving

Sealed bids for paving certain streets in the City of Macon, according to plans and specifications to be seen in the office of the City Engineer, will be received in the office of the undersigned up to 12 o'clock M. of June 1, 1915; said bids to cover paving with the following materials:

Vitrified brick,
Wire lug cut brick,
Plain concrete,
Concrete covered with Tarvia,
Creosoted wood block,
Asphalt block,
Sheet asphalt,
Asphalted concrete,
Bitulithic pavement,
Tarvia concrete,
Fiber asphalt,
Bituminous macadam,
Granite block.

Each bid to be marked "Bid for Paving" and to be accompanied by a deposit of bidder's bond or certified check for $500 as guarantee of good faith. The usual bonds will be required of successful bidder. The city reserves the right to reject any or all bids.

Address

D. S. JONES, City Clerk,
Macon, Georgia.

Road Construction

COUNTY COMMISSIONERS' DISTRICT NO. 4, LAKE COUNTY, FLORIDA.

Tavares, Fla.

Sealed proposals will be received by the Board of County Commissioners of Lake County, Florida, at the office of the County Clerk, in the Courthouse at Tavares, Florida, for the construction of a system of roadways in County Commissioners District No. 4, Lake county, until 12 noon June 7, 1915, at which time they will be opened and read publicly. The work includes the furnishing of all labor, material and machinery and equipment of every kind necessary to construct the roadways according to plans and specifications. The approximate quantities are as follows:

98,973 lineal feet roadway
25,988 cubic yards excavation.
112,024 square yards modified asphalt pavement.
7 bridges to be raised.
50 12" drains.
19.02 cubic yards concrete.
500 pounds steel.

Each bid must be accompanied by a certified check on a State or national bank of Florida, or a national bank of any other State, for 5 per cent. of the amount bid, drawn to the order of the County Clerk, H. H. Duncan.

Plans and specifications may be seen at the office of the County Clerk or the Engineers. Specifications may be obtained from the County Clerk or the Engineers. Copies of plans may be obtained from the Engineers at $15 per set to cover their actual cost.

The desire of the Board is to let the contract in as large sections as possible.

The right is reserved to reject any or all bids.

M. V. SIMPSON, Commissioner.
H. H. DUNCAN, Clerk.
THE J. B. McCRARY CO., Engineers,
1408-17 Third Natl. Bank Bldg.,
Atlanta, Ga.

Paving and Sewers

Clarksville, Texas.

Sealed proposals will be received by the Board of Aldermen of the City of Clarksville, Texas, at the City Hall, until 8 P. M. Monday, May 31, 1915, and publicly opened and read immediately thereafter, for furnishing all materials therefor and constructing certain street improvements in the said city. The following items represent approximately the work to be done:

1. Excavation for grading, 5112 cu. yds.
2. Vertical Fiber Brick Pavement on Concrete base, 13,531 sq. yds.
3. Asphalt Macadam Pavement, 7230 sq. yds.
4. Concrete Pavement, 1897 sq. yds.
5. Plain Concrete Curb, 8410 lin. ft.
6. Combined Concrete Curb and Gutter, 7058 lin. ft.
7. 10" Vitrified Pipe Sewer, 305 lin. ft.
8. 12" Vitrified Pipe Sewer, 60 lin. ft.
9. 15" Vitrified Pipe Sewer, 44 lin. ft.
10. 18" Vitrified Pipe Sewer, 370 lin. ft.
11. Stone Headers, 1300 lin. ft.
12. Catch-Basins, 8.

Certified check required with each bid, $4000, on any bank in the City of Clarksville, Texas.

Plans and specifications are on file at the office of the City Clerk, or can be had from the Engineer upon payment of $15 for same, half of which amount will be refunded upon safe return of plans and specifications.

Or specifications alone can be had upon payment of $5, half of which amount will be refunded upon safe return of specifications.

The city reserves the right to reject any and all bids.

C. E. TERRY, Mayor.
JOHN WEBB, City Clerk.
E. F. PETERSEN, Engineer,
Muskogee, Okla.
JNO. W. O'NEILL,
W. P. CORNELIUS,
E. L. CANTERBURY,
Improvement Committee.

Water-Works Improvements

Plant City, Fla.

Sealed proposals will be received by the Board of Public Works of Plant City, Florida, at the office of the Clerk, until the fifth day of June, 1915, for furnishing all material and machinery for water-works improvements, at which time they will be opened and read publicly.

The approximate quantities are as follows:

Station Equipment, Plan No. 1.

1 1,500,000-gallon Compound Condensing Pumping Engine.
1 300 cubic feet Compound Condensing Two-Stage Air Compressor.
1 100 H. P. Boiler, steel casing.
1 200 H. P. Open Heater.
1 Feed Pump.
1 Air Lift.

Station Equipment, Plan No. 2.

2 50 H. P. Oil Engines, direct connected to
2 500 G. P. M. Triplex Pumps.
1 50 H. P. Oil Engine, belt connected to
1 300 cu. ft. Two-Stage Air Compressor.
1 10,000-gallon Steel Oil Storage Tank.

Station Equipment, Plan No. 3.

1 100 H. P. Oil Engine, direct connected to
1 1000 G. P. M. Triplex Pump.
1 10,000-gallon Steel Oil Storage Tank.

Each bid must be accompanied by a certified check for five per cent. of amount bid, drawn to the order of J. L. Young, Chairman.

Specifications may be obtained from E. W. Mays, Superintendent Water-works, Plant City, Fla.

The right is reserved to reject any or all bids.

J. L. YOUNG,
Chairman Board of Public Works.

Water-Works and Sewer Machinery

New Smyrna, Fla.

Sealed proposals will be received by the City of New Smyrna, Florida, at the Town Hall, for furnishing all machinery for a water-works and sewerage system, until 3.30 P. M. May 26, at which time they will be opened and read publicly.

The pumping plant will be driven either by steam, oil engines or motors. Bids are desired on all equipment. The type of equipment to be purchased to be decided after bids are in.

Steam Plant.

2 80 H. P. boilers, steel cased.
1 boiler-feed pump and heater.
2 500 G. P. M. compound pumps.
Oil-burning equipment for two boilers.
1 10,000 horizontal type steel oil fuel tank.

Oil-Engine Plant.

2 500 G. P. M. triplex or duplex pumps, driven by
2 50 H. P. oil engines burning either crude or distillate fuel oil.
1 10,000-gallon fuel oil tank, horizontal type.

Electric-Driven Plant.

2 500 G. P. M. triplex pumps driven by
2 50 H. P. 2300-volt motors.
1 75,000-gallon tank on 75-foot tower.
1 water-softening plant, 150,000 gallons, 24 hours.

Each bid is to be accompanied by a certified check for 5 per cent. of the amount bid, drawn to the order of G. W. Brown, Chairman Board of Public Works.

Specifications may be obtained from the Engineers.

The right is reserved to reject any or all bids.

G. W. BROWN,
Chairman Board Public Works.
THE J. B. McCRARY Co., Engineers,
1408-17 Third Natl. Bank Bldg.,
Atlanta, Ga.

Heating and Ventilating

Apalachicola, Fla.

All bids for the installation of the heating and ventilating outfit for the new school at Apalachicola, Fla., having been rejected, the Board of Public Instruction of Franklin County, Fla., will receive other sealed proposals therefor until noon of Thursday, June 3, 1915. Plans and specifications can be consulted at the office of the Board of Public Instruction at Apalachicola, Fla., or at the office of its architect, C. F. Streeter, 513 West Bldg., Jacksonville, Fla. Bidders desiring copies of plans and specifications from which to figure elsewhere will be required to deposit five dollars with the architect, one-half of which will be refunded on return of plans in undamaged condition.

A. A. CORE,
Secy. of Board and Supt. Pub. Inst.

Steel Wharf Sheds

Port Commission of Jacksonville,
Office of Chief Engineer.

Jacksonville, Fla., May 15, 1915.

Sealed proposals for the furnishing of material and erection of steel wharf sheds on the Municipal Piers at Jacksonville, Florida, will be received by the Port Commission of Jacksonville until noon June 10, 1915, and then publicly opened.

Information and plans may be obtained at the office of the Engineer of the Commission at Room 314 Realty Building, Jacksonville, Florida.

The Commission reserves the right to reject any or all bids or waive any informalities in bids received.

F. W. BRUCE,
Chief Engineer.

Notice To Dredge Contractors

Trenton, Tenn.

Until noon on June 9, 1915, we will receive sealed bids, at the office of the County Court Clerk at Trenton, Tennessee, for excavating by dredgeboat of approximately 1,158,386 cubic yards of earth; to be bid on in two sections and as a whole. For specifications address the undersigned W. W. Powers, County Judge.

Trenton, Tennessee, May 10, 1915.

W. W. POWERS,
R. KILLOUGH,
K. E. WITHERSPOON,
Directors Drainage District No. 2,
Gibson County.

To Bridge Contractors

Lake Charles, La.

Sealed bids will be received until 11 o'clock A. M. Tuesday, June 1, 1915, at the office of the Highway Department, Calcasieu Parish, Lake Charles, La., for the construction of a Reinforced Concrete Arch Bridge, with a Double-Leaf Strauss Trunnion Bascule Span, over the Calcasieu River, near Lake Charles.

Each bidder shall file with his bid a sworn statement setting forth the location and description of a similar structure or structures which he has erected as proof of his ability and experience to undertake the present work.

Bidders shall file with their bids a surety company bond for an amount equal to the total bid, and this bond shall guarantee the execution and completion of the contract if awarded.

Bid, bond and sworn statement shall be enclosed in a sealed envelope bearing the bidder's name and marked "Bid for Calcasieu River Bridge."

Plans and specifications are on file at the office of the Highway Department and the office of this paper, and copies of same may be obtained upon payment of ten dollars ($10), same to be refunded upon the receipt of a bona fide bid and the return of the plans and specifications.

The Police Jury reserves the right to reject any or all bids.

C. E. HOUSE,
Clerk to the Police Jury.
F. H. FRANKLAND,
Bridge Engineer.

Drainage Ditches

Sealed proposals for the construction of drainage improvements in New Hanover County Drainage District No. 1, Wilmington, N. C., will be received by the Board of Drainage Commissioners up to noon on the 24th day of May, 1915, at their office in Wilmington, N. C.

The work to be done consists of nine miles of ditches; average depts 5 ft.; average bottom width 1.5 ft.; side slope 1 to 1; 53,000 cu. yds. excavation, approximately; four 55-ft. metal culverts; 10 small wooden bridges.

Work to be completed in 200 working days.

A certified check in the amount of $500, made payable to the Board of Drainage Commissioners of New Hanover County Drainage District No. 1, must accompany each bid.

Plans and specifications may be seen at the office of J. L. Becton, Engineer, Wilmington, N. C., or secured upon receipt of $2.50 to cover prints, etc.

The Board reserves the right to reject any or all bids.

Bids on a $22,000 bond issue for this work are invited the same day as proposals. In case they are not disposed of at par, the contractor will bid expecting to handle the issue.

C. VAN LEUVEN, Chairman;
M. F. H. GOUVERNEUR, Sec.,
Wilmington, N. C.
J. L. BECTON, Engineer,
Wilmington, N. C.

School Building

Notice is hereby given that sealed bids will be received at the office of the Board of Public Instruction of Brevard County at Titusville, Florida, on or before the 7th day of June, 1915, at ten o'clock A. M., for the erection of a Graded-school Building at Mims, Florida.

Plans and specifications may be had from A. E. Lewis, Architect, 24-26 Real Estate Building, Miami, Florida.

Contractors are required to deposit a certified check for $15, made payable to the Architect, to insure the safe return of plans and specifications for said building.

Each bid on said building must be accompanied with a certified check for $250, made payable to the Board of Public Instruction of Brevard County.

Checks for the plans and specifications will be returned to the bidders on the return of the plans and specifications, and the checks accompanying the bids will be returned to the unsuccessful bidders on the day the bids are opened.

Bids will be opened at the office of the School Board in the Court House at Titusville, Florida, Monday, June 7, 1915.

Contract will be let subject to a Bond election, which election will be held in School Board District and Special Tax School District No. 1 within 60 days from opening the bids.

The Board reserves the right to reject any or all bids.

By order of the Board of Public Instruction of Brevard County, Florida.

EDWIN E. MACY, Supt.,
Secretary to the Board.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Resigns as Southern Agent.

Walter R. Jennison, Grant Bldg., Atlanta, Ga., announces his discontinuance as Southern representative for the Harrison Safety Boiler Works of Philadelphia.

To Install Private Lighting Plant.

Contract to install private electric-lighting plant for W. C. Rodgers, near Jacksonville, Fla., has been awarded to C. J. Brasselle, engineer, Tampa, Fla. Storage-battery system of equipment will be used.

McIntyre & Stacy.

Charles A. Stacy and J. W. McIntyre of Hendersonville, N. C., have organized under the firm name of McIntyre & Stacy to do a general electrical contracting business in that vicinity. Mr. Stacy writes that his firm would like to get in touch with the manufacturers and jobbers of electrical goods, as a full line of these supplies will be carried.

Reliable Engine Co.

The Reliable Engine Co., Portsmouth, O., organized with C. Heer, president; John Heer, vice-president, and Ben Heer, secretary and treasurer, is successor to the engine business of the Heer Engine Co., manufacturer of both gas engines and tractors. Entire time of the new company will be given to the production of engines only, in sizes ranging from 6 to 50 horse-power, for operation with gas, gasoline or kerosene.

Will Erect Manufacturing Plant.

Blount Plow Works proposes to construct new factory at Evansville, Ind. Savannah Engineering & Construction Co. of Savannah, Ga., Wm. M. Torrance, chief engineer, will be engineering and construction agent for carrying out the investigation, design and construction of these works under the direction of Walter E. Blount, general manager of the plow works. Investigations are now being made and tentative plans are being prepared.

Want to Act as Southern Representative.

Jacob C. Pugh & Co., 636 New Monroe Bldg., Norfolk, Va., engineers and contractors, write in a recent letter to the Manufacturers Record as follows: "We would like to get in touch with manufacturers of machinery, pumps, mechanical equipment of various kinds and building supplies and specialties who desire sales representation in Virginia, West Virginia, North and South Carolina, Georgia and Florida, we having salesmen covering this territory."

Large Fire-Brick Contract Awarded.

Louisville Fire-Brick Works, Inc., Highland Park, Ky., has been awarded the annual contract for furnishing fire-brick material, amounting to about 75 to 100 carloads, to all the navy-yards in the United States. Although its bid was higher than any other competitor, the company reports that it was successful in securing this contract over the seventeen or more concerns entered. As indicative of the interest shown in its product abroad, the company states that an inquiry has recently been received from faraway Madras, India. The Louisville Fire-Brick Works, Inc., manufactures fire-clay and fire-brick for all purposes.

Newman's Building Directories.

An attractive building directory made with either a brass, bronze or gun-metal frame, which can be fastened to the wall or any convenient location, is being put on the market by the Newman Manufacturing Co., 717 Sycamore St., Cincinnati, designer and maker of theater fixtures, brass goods, etc. Latest catalogues of the building directories, which also illustrate the bulletin boards, interchangeable signs, brass and bronze tablets, brass railings, etc., manufactured by the company, will be furnished to interested persons by addressing the Cincinnati plant, or the concern's other factories located at 101 Fourth Ave., New York, and 108 W. Lake St., Chicago.

Branch Office in Memphis to Handle Coosa Cement.

Owing to the increasing demand for Coosa cement in Mississippi, West Tennessee and Arkansas, the Kirkpatrick Sand & Cement Co. of Birmingham, Ala., the sole selling agent for Coosa Portland cement, has established a branch office in the Builders' Exchange, Memphis, Tenn. The establishment of this office will enable the Kirkpatrick Sand & Cement Co. to keep in closer touch with its increasing customers in the section to be covered and will enable it to handle orders with greater facility. H. C. Ashmead, who has met with much success in selling Coosa cement in other parts of the South, will be in charge of the Memphis office.

To Install Mietz & Weiss Oil Engines

The following sales and installations of oil engines are reported by August Mietz, manufacturer of the Mietz & Weiss oil and gas engines, 128-38 Mott St., New York: Grinden Art Metal Co., Brooklyn, N. Y., two 50-horse-power oil engines; town of Schleswig, Iowa, one 50 and one 75-horse-power oil engine for operating alternator in electric-light plant; I. H. Pitts & Son, Waverly Hall, Ga., one 30-horse-power oil engine; Marcus Mason & Co., South Framington, Mass., one 25-horse-power oil engine; Charles N. Taylor, Salisbury, Mass., one 25-horse-power oil engine; George Buckley, Menlo, Iowa, one 40-horse-power oil engine, and the United States Government has contracted for two 200-horse-power direct-reversible marine-type oil engines, and four 50-horse-power oil-engine air-compressor outfits for lightships Nos. 101 and 102.

Hart-Parr Company Opens Kansas City Branch.

The Hart-Parr Company of Charles City, Iowa, pioneer tractor builder, reports that its successful campaigns for business throughout the Southwest during the past three years have necessitated the establishment of a distributing house in that section. The company has opened a large branch office and warehouse at 1417-19 W. 10th St., Kansas City, Mo., with H. E. Henderson, former manager of the Denver branch, in charge, as it will be handled in conjunction with the Kansas City office. It is said the regular Hart-Parr line of power outfits, consisting of the well-known "Old Reliable," "Steel King," "Dreadnaught," "Crop Maker" and "Little Devil" oil tractors and Hart-Parr "Money Maker" threshers and "Self-Lift" plows will be carried in stock, together with an unusually large and complete stock of repair parts.

Pumping Machinery for Panama Canal.

Contract for furnishing material under circular No. 891 for a complete pumping plant for Drydock No. 1, Balboa Terminals, Canal Zone, Isthmus of Panama, was awarded by the Panama Commission to Henry R. Worthington of New York. In addition to the important pumping machinery to be installed, the contract involves design, fabrication and delivery on the Isthmus of the structural, mechanical, electrical and hydraulic parts required. The pumping plant comprises four main pumps, two drainage pumps and one bilge pump. The contract further includes all of the hand and power operated gate valves, as well as the automatic check valves. For operating the gate and sluice valves by power a hydraulic-pressure system is provided, consisting of a weighted accumulator and the necessary pressure pumps in duplicate.

Machinery Sales.

Edgar M. Moore & Co., dealers in new and second-hand electrical and steam machinery, railway equipment, etc., 808-10 Farmers' Bank Bldg., Pittsburgh, in commenting on business conditions write: "In November, 1914, after trying for a year to sell two 750-horse-power gas engines, we sold one. The other hung fire until about April 1, when we sold that one. With this lot were two 110-horse-power gas engines, which have since been sold; on top of these a 1000-horse-power gas engine, and then an 85-horse-power engine, followed by a 55-horse-power engine with generator direct connected; two 400-horse-power B. & W. boilers; one 16x14-inch air compressor; one 150-horse-power and one 100-horse-power D. C. motor, together with a number of small motors, gas engines, air compressors and machine tools." The foregoing is indicative of the better business conditions prevailing at the present and enjoyed by many firms.

TRADE LITERATURE

Kelly-Springfield Road Rollers.

Steam and gasoline street and road rollers manufactured by the Kelly-Springfield Road Roller Co., Springfield, O., are illustrated and described in a catalogue recently issued by the company. The rollers are made in all sizes and styles from 2½ tons to 20 tons, suitable for modern street and road specifications. The company also announces it is prepared to furnish special rollers for extraordinary work, and will supply attachments for scarifying, crushing, grading, hauling, plowing, rolling embankments, etc.

Barber Asphalt Pavements.

"New Pavements for Old" is the title of a pamphlet issued by the Barber Asphalt Paving Co. of Philadelphia, in which the resurfacing of old pavements with sheet asphalt and asphaltic concrete is discussed. Methods to be followed by contractors and pitfalls to be avoided in work of this kind are pointed out in the pamphlet. Another booklet of interest to road contractors which is issued by the Barber Asphalt Paving Co. treats on Trinidad and Bermudez lake asphalts and their use in highway construction.

Cameron Pumps.

Cameron steam pumps, double-suction volute centrifugal pumps, turbine centrifugal pumps, single-suction volute centrifugal pumps, two-stage house-service centrifugal pumps and vertical triplex pumps are illustrated and described, respectively, in bulletins Nos. 104, 150, 151, 152, 153 and 300 issued by the A. S. Cameron Steam Pump Co., 11 Broadway, New York. Excellence of design, simplicity and durability claimed for Cameron pumps are discussed, together with details as to characteristics and construction of the particular pump described in each bulletin.

Art Metal Office Specialties.

More and more the modern business man is adopting the use of art metal office specialties. A leading manufacturer of these utilities is the Art Metal Construction Co., Jamestown, N. Y., now distributing an illustrated catalogue describing its offerings. These have for years been giving satisfaction to exacting buyers. They include boxes, cabinets, doors, vertical files in units, indexes for vertical filing, upright storage units, card record units, sectional transfer cases, "offices on wheels," bases and sliding shelves, private lock door sections, desks, tables and typewriter stands, safes, etc.

Topographic Engineering.

A subject of importance to the officials of every city and community and one that is worthy of their consideration is topographic engineering and its relation to city planning, municipal engineering and other public-development work. Much information is given regarding the value to a city of complete, accurate and economic topographical data in a circular issued by Brown & Clarkson, Star Bldg., Washington, D. C., civil and mining engineers. This firm specializes in topographic engineering for city planning, reclamation, power development, triangulation and topographic surveys, municipal engineering, etc.

"Borderland" Anthracite Coal.

The Borderland Coal Co. of Roanoke, Va., is distributing a catalogue describing the merits of its "Borderland" brand coal, which is mined in Pike county, Kentucky. It is claimed to be free burning, low in ash and will not slack when stored in the open. Illustrations showing interior views of the company's mines, manner of mining, coal-handling machinery, etc., are given in the catalogue, together with a general description of the property, plants and method of coal mining as practiced by the Borderland Coal Co. The Borderland Coal Sales Co. of Cincinnati, O., is the general sales agent for this coal.

Oxy-Acetylene Welding and Cutting.

The third revised edition of a textbook on welding and cutting metals by the oxy-acetylene process, which was written by C. H. Burrows, is now being issued by the Vulcan Process Co., Minneapolis, Minn. The purpose of the book is to give short, clear and practical instructions on the subject of oxy-acetylene welding. The chapters on chemistry, physics and metals are said to be of the most elementary nature and cover in plain language only the subjects that are vital to the welders' information. At the same time they are said to be sufficiently explicit to give a thorough working knowledge of the subjects that pertain to this work.

Atlantic Terra-Cotta.

The May number of Atlantic Terra-Cotta, issued by the Atlantic Terra-Cotta Co., 1170 Broadway, New York, is devoted to a description of many recently-erected Masonic buildings in which the company's terra-cotta products have been utilized. Illustrations are given of the Masonic Temple, Charlotte; Scottish Rite Cathedral, Meridian, Miss.; W. D. Luckie Masonic Lodge, Atlanta; Masonic Temple, Pittsburgh, and the Masonic Temple, Brooklyn. Southern branch of the company, known as the Atlanta Terra-Cotta Co., is located in the Third National Bank Bldg., Atlanta.

Return Tubular Boilers.

Keeler return-tubular boilers are illustrated and described in a catalogue recently issued by the E. Keeler Company of Williamsport, Pa. The company states the boilers are the product of 50 years' experience in constructing boilers of all standard types, and that Keeler quality is the result of a consistent effort to place Keeler boilers among steam users who require the best that can be produced. In addition to the many illustrations showing installations of Keeler boilers in different parts of the country, details of construction, materials and workmanship are fully described in the catalogue.

Milwaukee Concrete Mixer Co.

A machine for maximum efficiency and reliability was the purpose in designing the Milwaukee mixer. Sturdiness of construction, combined with simplicity, were adopted to accomplish the end mentioned, and satisfied users are admitting the success of the designer. To assure perfect and rapid mixing, the Milwaukee drum is spherical in form. The machine is constructed so as to be readily equipped with either steam, gasolene or electric power without changing the frame or general design. On important construction throughout the country the products of the Milwaukee (Wis.) Concrete Mixer Co. can be seen at work. Complete descriptions, accompanied by photographic views, are presented in the company's catalogue now being distributed.

Monarch Furnaces.

Monarch furnaces, using oil, gas, coke or coal for fuel, are offered to meet the requirements of mines, mills, smelters, refiners, mints and manufacturers of articles of gold and silver. They use any air-blast desired. These Monarch furnaces for melting and refining and foundry equipments should be investigated by users of such equipment who are not informed as to Monarch efficiency. Complete details, accompanied by numerous photographic views, are presented in publications issued by the Monarch Engineering & Manufacturing Co. This company manufactures the machinery referred to, including the crucible furnaces, metal melting tilting furnaces, stationary furnaces, core ovens, portable heaters, fuel oil burners, etc. Company's offices at 1206 American Bldg., Baltimore.

Montezuma Asphalt.

A 56-page catalogue on Montezuma asphalt has been issued by the Warren-Quinlan Asphalt Co. The officers of the company are at 79 Wall St., New York city, and Syracuse, N. Y., and the refinery is located at Warners, N. J. Many illustrations showing city streets and roads in different parts of the country that have been paved and also in process of paving with Montezuma asphalt are given in the catalogue, together with letters of commendation from city engineers and other officials and road contractors. Montezuma asphalt, which is obtained from a natural liquid asphalt or heavy maltha, found near the eastern coast of Mexico, is said to produce the highest grade of sheet asphalt, asphalt cement, refined asphalt, asphaltic concrete, asphalt macadam, and makes an excellent road binder and dust layer.

Scaife Water Purifying System.

A booklet entitled "Central Power Station Economy," issued by the Wm. B. Scaife & Sons Company, 221 First Ave., Pittsburgh, Pa., contains an interesting discussion on water softening and purifying as one of the problems of the central power station. Another booklet recently issued by the company describes the "We-Fu-Go" or Scaife water-softening and purifying system and its relation to the manufacture of pure

clear ice. The booklets will be sent to the readers of the Manufacturers Record upon request to the company. Recent contracts received by the Wm. B. Scaife & Sons Company include a steel-constructed paint shop erected on Preble Ave., Pittsburgh, for the Duff Manufacturing Co., and the structural-steel work for a new casthouse, also stairs to the furnace hoist tower of the Josephine Furnace & Coke Co., Josephine, Pa.

Steam Condensing Plants.

Much valuable information on the subject of steam condensation is contained in catalogue No. 1001 on Barometric Condensers issued by the Cresson-Morris Company of Philadelphia. The steam condensing apparatus for all conditions described in the catalogue include the Ingersoll-Rogler vacuum pump and the Beyer counter-current condenser. Briefly summarized advantages claimed for the Beyer counter-current design barometric type of jet condenser are: High vacuum at exhaust of prime mover; ability to vary amount of cooling water in direct ratio to load of prime mover without impairment of vacuum; operating vacuum under all conditions; low operating cost, and permissible use of dirty, gritty or acid cooling water continuously without necessity for cleaning or repair. The condensers are described in detail and illustrated with sectional drawings.

Road Machinery Catalogues.

The Austin-Western Road Machinery Co., 910 S. Michigan Ave., Chicago, Ill., has issued a catalogue and memorandum book summarizing the contents of ten large catalogues which it publishes. This index catalogue is a key to the company's line of special catalogues, and while it briefly describes its products, by referring to the index, particular catalogues covering machinery sought can be secured. Complete catalogue of Western machinery, complete catalogue of Austin machinery, Austin gyratory crusher catalogue, Aurora jaw crusher catalogue, complete catalogue of Austin and Western road graders of all sizes, also scrapers, plows and drags, Austin sweeper and sprinkler catalogue, Austin motor roller catalogue, Austin tandem roller catalogue, Austin dump-wagon catalogue, and Austin motor lawn mower catalogue are among the publications issued by the company.

Special Advertisements of General Interest.

Factory Building For Sale

Factory, 5 stories, basement and attic—68½x285, and outside elevators, stairways and fireroom; 2 90 H. P. boilers, 80 H. P. engine; fronts on three streets and navigable river; dock on premises; short haul to Penn. R. R. freight depot; building has ample light; is very strongly constructed; trussed slate roof; no posts on fifth floor. The greatest bargain in central New Jersey.

Address Box 33, NEW BRUNSWICK, N. J.

Sale Of ENOREE COTTON MILLS

Under and by virtue of order of Court of Common Pleas, dated May 3, 1915, in the case of W. S. Montgomery et al, Plaintiffs, vs. Enoree Manufacturing Company, Defendant, I will sell to the highest bidder at public outcry on June 7, 1915, at 12 o'clock noon, at the County Courthouse, Spartanburg, S. C., all of the property, both real and personal, of the Enoree Manufacturing Company, including 720 acres, more or less, in Spartanburg and Laurens counties, and the Cotton Mill thereon, containing 36,000 spindles, with full equipment of machinery and mill village dwellings and tenement-houses, two standard cotton warehouses, brick store, and stock of merchandise, hotel and livery stable. Also, all supplies, live stock, etc., together with the water-power by which the mill is operated in addition to the steam-power plant auxiliary thereto. Also, an undeveloped water-power of 371 acres, more or less, on Tyger River, in Spartanburg county, with certain rights of overflow, including Hills Shoals.

The above property to be sold as a whole for cash. No bid for less than $350,000 will be considered, and a deposit of $5000 in cash or a check properly certified by a satisfactory bank in the State of South Carolina will be required before any bid can be submitted.

For further particulars as to the property and terms of sale, reference is craved to the decree on file in said Court.

A. M. LAW,
Receiver Enoree Manufacturing Co.

Spartanburg, S. C.

N&W RY. **Newly Equipped Plant in Large Ohio City For Sale or Lease** N&W RY.

There are two large buildings of concrete, brick and corrugated iron construction, having a total floor space of 30,000 square feet. Also, several other smaller buildings, including a foundry, and about six acres of land.

The plant is equipped with machinery for the construction of gas and oil engines, and would be adapted for an allied industry.

Located on rails of line affording good outlet to markets.

For details write to

F. H. LA BAUME, Agricultural and Industrial Agent,
Norfolk & Western Railway Co.,
Roanoke, Virginia.

REFERRING TO FILE M-4707.

BRICK PLANT
FOR SALE OR LEASE

One of the best located and equipped operating Brick Plants in the Southwest. Manufacturers of vitrified face and paving brick. Matt face a specialty. Located at Ft. Smith, Ark. Trade covers part of four States. Terms can be made to suit a responsible purchaser. Capacity, 75,000 brick per day.

Address BURKE BRICK COMPANY, Ft. Smith, Ark

Merchants Looking for Better Location

with all conditions in their favor, should write me about new EARLE BUILDING, Birmingham, Ala.—five stories and basement, strictly modern, full fireproof construction, in heart of city, and one hundred feet from best improved corner in the South.

R. A. TERRELL

503 Title Guarantee Bldg. Birmingham, Ala.

SALES AGENCY

in New England territory would like to represent reliable concern in iron or machinery line, straight commission basis. Prompt attention to all inquiries. Have storage facilities—salesmen on road—equipped with business autos. Write for information. Address

VULCAN CO. Allston Sta., Boston

FOR SALE
Exceptional Plant

Fully equipped with Boilers, Engine, Electric Light Plant, Sprinkler System, all Piping, Shafting, Pulleys and Main Belts. First water right to a private brook giving plenty and pure water. Land about 500x300. Main buildings, four story, 300x60, all brick, two-foot walls, and other smaller buildings. All about two hours from New York. Spur track into mill yard. Plenty of help—town close to fifty thousand. Immediate possession. Apply

RAWITSER, 285 W. Broadway, New York

FOR SALE

Delaware River property; 10 acres of land; buildings erected recently; equipment; plenty of labor; deep water; three railroads; excellent opportunity to purchase a property that can be operated immediately.

W. L. BIRTWELL

Crozer Building PHILADELPHIA

Your chance to open up a new market for your goods in

SOUTH AMERICA

If interested, write at once to

FRIEDR. W. LUTZ - RICHMOND, VA.

Personal Representatives in Brazil and the Argentine Republic.

Bankrupt Sale of Mill Site, Machinery and Other Property of Tolson Lumber and Manufacturing Company

Pursuant to order of sale rendered in Bankrupt Court by S. W. Smallwood, Referee in Bankruptcy, on Saturday, the 24th day of April, 1915, in the matter of Tolson Lumber and Manufacturing Company, Bankrupt, the undersigned Trustee will sell for cash at public auction, at the office of Tolson Lumber and Manufacturing Company, on East Front street, on Monday, June 7, 1915, at 12 M. o'clock, the following described property, to wit:

Certain lot or parcel of land lying and being in the city of New Bern, Craven county, on the east side of East Front street, bounded on the north by the lands of the Atlantic Coast Line Railway Company, on the east by Neuse River, on the south by the lands of the Neuse Lumber Company and J. B. Aldridge (the latter being formerly owned by Enoch Wadsworth), and on the west by East Front street, the same being the present work site and lumber plant of the Tolson Lumber and Manufacturing Company.

Also, all machinery, belts, tools, office furniture and fixtures and all equipment and appliances connected with the operation of said plant, and all other improvements upon said property.

The above property will be sold either in parcels, lots or as a whole and free from liens and encumbrances. Same will be sold subject to approval of Bankrupt Court, and title will not pass unless sale is confirmed by said Bankrupt Court.

Private bids will be received by the Trustee and opened on day of sale and used in connection with said sale.

This 5th May, 1915. T. D. WARREN, Trustee, New Bern, N. C.

Public Sale of EWALD IRON COMPANY

The Fidelity and Columbia Trust Company, Executor and Trustee under the will of L. P. Ewald, will, on Wednesday, June 2, 1915, at eleven o'clock A. M., at the Exchange Hall of the Board of Trade in Louisville, Kentucky, sell at public auction to the highest bidder 2955 shares of the capital stock of the Ewald Iron Company of Louisville, Kentucky, a corporation organized under the laws of Kentucky.

The total capitalization of the Company consists of 3000 shares of common stock, of which there has been issued 2955 shares, each share being of the par value of $100. Forty-five shares remain in the treasury of the Company to be issued in accordance with the terms of a contract between the Ewald Iron Company and A. J. Sills.

The sale has been authorized by the Jefferson Circuit Court, Chancery Branch, Second Division.

No bid of less than $214.17 per share will be entertained, and the Executor and Trustee reserves the right to withhold from sale 770 shares if, after the final acceptance of a bid, it elects so to do. Each bidder will be required to deposit with the Executor and Trustee, in advance of the bidding, a check for $60,000, certified by some bank or trust company doing business in Louisville, Kentucky, as an evidence of good faith, and in order to assure compliance by the successful bidder with the terms of sale. Checks deposited by unsuccessful bidders will be returned to them, and the check deposited by the successful bidder will be credited on the purchase price when the terms of sale are fully complied with. In case the successful bidder fails or refuses within ten days to comply with the terms of sale, said check so deposited by him will be forfeited to the Executor and Trustee for the use and benefit of the estate of L. P. Ewald as liquidated damages and not as penalty.

The terms of sale will be one-third cash and the balance in three equal installments due on or before six, twelve and eighteen months, respectively. For the deferred payments the purchaser will execute to the Executor and Trustee his three promissory notes, of equal amount, due on or before six, twelve and eighteen months from their date, respectively, and bearing six per cent. interest from their date. To secure the payment of said notes, and each of them, a lien will be retained on all the shares of stock sold, and said shares must be deposited with the Executor and Trustee, to be held by it until said indebtedness is fully paid. The notes executed by the purchaser shall be the usual form of collateral note now used by the Fidelity & Columbia Trust Company, and each note shall contain a provision that on failure to pay any note or interest for thirty days after same becomes due, the Trustee may declare all of the unpaid notes to be due and may proceed to enforce payment thereof by a sale of the stock as provided in the notes.

There will be refunded to the Ewald Iron Company, upon compliance with the terms of sale, the sum of $30 on each share of stock sold, being the amount of a dividend declared by the Ewald Iron Company on the 16th day of January, 1915. The purchaser shall have the right to pay the full purchase price in cash.

Prospective purchasers shall have the right to inspect a statement showing the operations of the Ewald Iron Company for the period of five years last past, said statement having been prepared by James S. Escott in February, 1915, and filed in the Jefferson Circuit Court, Chancery Branch, Second Division, in action No. 56908, styled Columbia Trust Company, Executor, etc., vs. Philip L. Ewald, etc., and certified by the Executor and Trustee to be correct. Prospective purchasers shall also have the right to inspect the plant of the Ewald Iron Company on any day from May 22, 1915, to June 1, 1915.

Bargains in Machinery and Supplies.

STEAM HAMMERS

Single Frame Steam Forging Hammers of all sizes in stock for immediate shipment. Get our prices before buying. They will interest you.

Erie Foundry Company ERIE, PA.

Foundry Equipment FOR SALE

Including Iron and Wood Flasks
Four Rumbling Mills
One No. 5½ Roots Blower with about 100 ft Galvanized Pipe, Crane, etc.

All in Good Condition.

D. A. TOMPKINS COMPANY Charlotte, N. C.

POWER and COAL MINING EQUIPMENT

IN EXCELLENT CONDITION

FOR SALE

Direct Current Generating Sets, 250 and 550 volts.
Boilers, 150 H. P., Return Tubular.
Feed Water Heaters—Cochrane, Stillwell-Bierce and McGowan.
Horizontal and Vertical Steam Engines, 5 to 320 H. P.
Air Compressors—Laidlaw-Dunn-Gordon and Norwalk, capacities 900 cu. ft. to 2100 cu. ft.
Separators, Steam Traps and Piping.
Steam Pumps, Piston and Plunger, best makes.
Mining Equipment. Full list furnished on request.

NEW RIVER COMPANY
Equipment Sales Department MACDONALD, W. VA.

Electrical Equipment FOR SALE

All the electrical equipment in the

Belt Line Power House
OF THE
B. & O. R. R.
Howard and Montgomery Sts.
BALTIMORE, MD.

Consisting of Engines, Generators, Motors, etc. Inquire on the premises, or of

LURIA BROS. & CO.
READING, PA.

Water Tube Boiler FOR SALE

One 150 H. P. Babcock & Wilcox Water Tube Boiler, thoroughly overhauled and inspected by Hartford Steam Boiler Inspection & Insurance Co., with an allowance of 150 lbs. pressure.

KILBY FROG & SWITCH COMPANY
P. O. Box 914
BIRMINGHAM, ALA

Cross Compound Corliss Engines FOR SALE

2—20x38x48 500 H. P. 80 R. P. M. Hamilton.
1—14x26x42 350 H. P. 85 R. P. M. Hamilton.

Above have rope drive wheels. Are in first-class condition.
Price $25 per net ton.

National Machinery & Wrecking Co.
1916 Scranton Road
Electrical Dept. CLEVELAND, OHIO

WATCHMAN CLOCK FOR SALE CHEAP

Newman Watchman Clock complete, nine stations; approved by underwriters. Practically new. Will sell cheap to quick buyer.

F. T. CUMMINGS, Bristol, Va.

FOR SALE

1 40 H. P. Westinghouse Engine, 25 K. W., 110-volt dynamo.
2 New 54" Vertical Boring Mills.
3 1" Bolt Cutters.

Detrick & Harvey Machine Company
BALTIMORE, MD

FOR SALE CHEAP

One Land Pile Driver, 3000-lb. hammer, 50 ways and steel rollers.
Four Steel-Guyed Stacks, 6'x100'.
One Steel Self-Supporting Stack, 10'x150'.

CENTRAL TRANSFER CO.
415 N. Front St BALTIMORE, MD

Machinery Bargains

14-ton 9"x14" Porter Locomotive, 36" gauge.
4-yd. K. & J. Dump Cars, 36" gauge.
¾-yd. All-Steel Dump Cars, 20" gauge.
200 tons 60 and 70-lb. Relaying Rails.
120 tons 12 and 16-lb. Relaying Rails.
175 tons 12" 35 and 40-lb. Sheet Piling.
50 24" 80 and 100-lb. I Beams, 30 to 39.
300 15" 42 and 60-lb. I Beams, 15 to 18.
200 12" 40-lb. I Beams, 15 to 18.
40 100x15 All-Steel Frame Buildings complete, ready to erect.

Write for Free Complete List No. XB-212.

Harris Brothers Company, Owners
CHICAGO HOUSE WRECKING CO.
35th and Iron Sts. CHICAGO, ILL.

BOILERS

2 60x16-135 lbs. pressure.
2 72x20-140 lbs. pressure.
200 H.P. Erie City, 150 lbs. pressure.
4 250 H.P. Heine, 160 lbs. pressure.
2 300 H.P. Edgemoor, 175 lbs. pressure.
350 H.P. Heine, 150 lbs. pressure.
2 520 H.P. B. & W., 150 lbs. pressure.
4 600 H.P. B. & W., 200 lbs. pressure.

WILSON MACHINERY CO.
419 Pine St.—OTHER SIZES—St. Louis.

New Leather Belting

At the Usual Cost of Good

SECOND-HAND—While It Lasts

We have a special lot of new double leather belt of the best makes, which, owing to its being stock worn, and in some instances remnants from manufacturers' sales, can be offered at the low prices enumerated below:

45'	¾"	$ .09	per foot
250'	1"	.10	per foot
53'	1½"	.15	per foot
35'	2½"	.25	per foot
25'	2¾"	.33	per foot
1500'	3½"	.35	per foot
65'	3¾"	.37½	per foot
200'	4"	.40	per foot
525'	4½"	.45	per foot
850'	5"	.50	per foot
220'	5½"	.55	per foot
30'	8½"	1.02	per foot

SECOND-HAND (Special)

97'	20"	Heavy	$2.40 per foot
67'	20"	Heavy	2.00 per foot

We also have in stock a considerable quantity of new and second-hand single and double leather belting at special prices. We will send you samples and quotations.

L. F. SEYFERT'S SONS, Inc.
437 N. Third Street Philadelphia

Gas Engine, Grain Pressers, Dryer, Bagging Machine, Safe, Scale, Motors, Wagons, etc.

FOR SALE

A large gas engine, 14-in. belt; 3 large grain pressers, with conveyors, complete; a large grain dryer, for brewer's grain or fruit; bagging machine; large safe; 5-ton wagon scale; 5 different-sized motors; 10 steel-body back-dump grain wagons, suitable for coal, brick or scavenger.

415 W. Fayette Street
BALTIMORE, MD.

AT A BARGAIN

10,000 feet 22" Riveted Steel Dredge Pipe (first-class condition, practically good as new) at 50c. per foot f. o. b. cars, for immediate shipment.
2 1,000,000-gallon D'Auria Pumps (can now be seen working).
1 Ingersoll-Sargeant Straight Line Air Compressor, 22x22¼x24.
1 Ingersoll-Sargeant Straight Line Air Compressor, 16x16¼x18.
2 Ingersoll-Sargeant Straight Line Air Compressors, 12x16¼x14.

PLANTS BOUGHT AND DISMANTLED.

Boston Iron & Metal Company
Baltimore, Md.

GENERATING SET

150 K. W. G. E. Type MP Class 6 [illegible] Generator, direct connected to Fleming Harrisburg tandem compound engine, with switchboard, in use about two years. Bargain for quick sale.

L. A. GREEN
1511 First Nat. Bank Bldg. PITTSBURGH, PA.

GENERATING SET FOR SALE

A 62½ K. W. Allis-Chalmers Generator, 250 volts, 260 amperes, direct connected with an Erie City slide-valve 100 H. P. engine, in first-class order and condition. For further information address

THE ROYAL LAUNDRY, Richmond Va.

MOTORS AND DYNAMOS

Large stock A. C. and D. C. Get our bargain sheet.
Armature and Field Coils for any type. Commutators, bearings, shafts, etc. Machines rebuilt. Light and heavy repair work.

PAN ELECTRIC MFG. CO.
ST. LOUIS, MO.

500 volt D. C. Motors with Base and Pulleys For Sale

One G. E. 30 H. P. 1025 R. P. M....$175
One Bullock 25 H. P. 1375 R. P. M..$125

Lanham Hardwood Flooring Co.
LOUISVILLE, KY.

Direct Current Generator FOR SALE

150 K. W. 6-pole 250-volt 550 R. P. M. 3-bearing Fort Wayne Belt-Driven Direct-Current Generator. Immediate delivery.

National Machinery & Wrecking Co.
1916 Scranton Road Electrical Dept. Cleveland, Ohio

ELEVATING GRADER FOR SALE

Made by the Good Roads Machinery Co. Used a short time only. New elevator belt to go with machine. Original cost $920. Will sell for $250 f. o. b. North Wilkesboro.

H. C. LANDON, North Wilkesboro, N. C.

MEN WANTED

If you are looking for a position, read this department in our Classified Opportunities every week. Should an opening not be there that is entirely to your liking, advertise for it under "Situation Wanted."

Manufacturers Record

REFRIGERATING MACHINE

3-Ton Racine Vertical, two cylinder, belted type Refrigerating Machine, complete with condenser, ammonia receiver, oil trap, gauges, cooling-room coils and hold-over tank; little used. Bargain for quick sale; less than one-half new cost.

The Assets Purchasing Company
Wheeling, W. Va.

FOR SALE

Complete Steam Electric Power Plant

Big Bargain Before Removing to Our Warehouse

2 18x18 Skinner Center Crank Self-Oiling Automatic Engines.
2 Jeffrey 150 K. W. 250-275-volt Direct Current Belt-Driven Generators. Speed 500 R. P. M.
1 5-Panel Switchboard and Instruments.
2 18" Double Leather Belts.
4 150 H. P. each 72"x18' BUTT-STRAPPED TRIPLE-RIVETED Horizonal Tubular Boilers with Full Flush Fronts, Grate Bars and Fittings.
1 600 H. P. Stillwell Open Type Feed Water Heater.
2 Suitable Size Single Steam Pumps.

This plant is complete in detail, including all necessary fittings and attachments, and is in excellent condition throughout. Will sell separately at very low prices, but offer an exceptional bargain on the plant complete.

Pfannmueller Engineering Co.
Suite 1733 First National Bank Building
CHICAGO

Air Compressor, Tank, Beam Shear, Motor, Etc.

FOR SALE

One Blaisdell Air Compressor, Class AA, size 10x10, speed 150, direct connected with 25 H. P. Westinghouse Motor, 25 cycles, 220 volts, 3-phase.
One Automatic Cut-off Controller.
One Air Tank.
One "Johns" Patent Beam Shear, capacity 20" 65-lb. beams, with knives and blocks.
One 10 H. P. Westinghouse Motor, 220 D. C.

Chesapeake Iron Works
BALTIMORE, MD.

MACHINERY and SUPPLIES

FOR SALE

All sizes new and second-hand Pulleys, Belting, Shafting, Hangers, Couplings, Pillow Blocks, Collars, etc.

PASSMAN BROTHERS
28 & 30 So. Green St., Chicago, Ill.

BOILERS

FOR SALE

1—300 H. P. Vogt Water Tube Boiler, 150 pounds, with Green Stoker and 60"x100' steel stack, used only 18 months.
1—100 H. P. Vogt Hand-fired Water Tube Boiler, 150 pounds, used one year.

HENRY VOGT MACHINE CO.
LOUISVILLE, KY.

Special Bargains in Sanders

1 42" 3-drum Perfection Sander, thoroughly overhauled.....$350.00
1 48" 3-drum Thomas Sander.....$400.00
1 46" 4-drum H. B. Smith Sander.....$500.00
1 48" 3-drum Royal Invincible Sander, used only 3 weeks.....$550.00
1 54" 3-drum J. A. Fay & Co., fine order.$500.00
1 60" 3-drum Columbia Sander in A-1 condition $600.00

JOINTERS

1 20" Carrey Hand Jointer.....$100.00
1 30" Buss Extra Heavy Hand Jointer.$125.00
Woodworking machinery of all kinds.
Write, stating your requirements.

CLEVELAND BELTING & MACH'RY CO.
1922 Scranton Road Cleveland, O.

In replacing our manufacturing equipment we find the following first-class

Used Machine Tools

which we offer at attractive prices

ENGINE LATHES

No. 5—Two 17"x6' Gray.
No. 142—18"x10' Lodge & Shipley Motor-Driven Patent Head.
No. 136—20"x12' Lodge & Shipley Patent Head.
No. 7385—24"x12' Lodge & Shipley Patent Head.
No. 49 D—24"x12' Sellers.
No. F—15"x16' Blaisdell 4-step Cone.

SPECIAL LATHES

No. 76—No. 3 Lodge & Shipley Rapid Reduction.
No. 5302—20"x16' Lodge & Shipley High Speed.
No. 7694—24"x8' Lodge & Shipley Triple Geared Friction Head.
No. 1305—14"x6' Towsley 4-step Cone Speed.

TURRET LATHES

No. 28—16"x6' Lodge & Shipley 3-step Cone.
No. 111—22"x7' Lodge & Shipley 3-step Cone, Friction Head.
No. 122—Two 24"x10' Lodge & Shipley 3-step Cone, Friction Head.

PLANERS AND SHAPERS

No. A—30"x30"x10' Detrick & Harvey Open Side.
No. B—36"x36"x12' Niles.
No. 248—30"x30"x10' Gray.
No. 219—24"x24"x12' Ohio.
No. 239—16" Queen City Back Geared.
No. D 223—26" Smith & Mills Shifting Belt.

HORIZONTAL MILLERS

No. 313—Cincinnati No. 4 Plain.
No. 346—LeBlond No. 4 Heavy Duty.

GRINDERS

No. 629—No. 16 Landis Plain Grinder.
No. 650—No. 11 Landis Plain Grinder.
No. 668—No. 3 Landis Plain Grinder.
No. 694—No. 24 Landis Plain Grinder.
No. 696—Rivett Grinder equipped with Heald Internal Head.
No. 703—No. 1 LeBlond Universal Cutter and Tool Grinder.

MISCELLANEOUS

No. 347—Burke Hand Miller.
No. 432—Gardam Multiple (four-spindle) Drill.
No. 1690—2"x8' Rockford Straightening Machine.
No. 1336—Sturtevant Blower. Diameter of outlet, 3¾".
No. 2531—Sturtevant Blower. Diameter of outlet, 2⅝".
No. 1326—Two 2" Cleveland Automatic Turret Machines.
No. 1340—1" Cleveland Automatic Turret Machine.
No. 1329—2¼" Hartford Automatic Screw Machine.
No. 683—Mueller Grindstone Frame for 4"x27" stone.
No. C—Diamond Emery Wheel Stand (for two wheels).
No. D—West Haven Hack Saw (for 6" stock).
No. E—Pawling & Harnischfeger Horizontal Boring Machine with Baush 6-spindle attachment.
No. 1363—12"x40" Mumford Molding Machine.
No. 1379—Universal Swivel Table for Radial Drill.
No. D 1356—Diamond Combination Grinding and Polishing Stand.
No. 1401—Gleason Mitre Gear Tester.
No. 661—Globe Tool Sharpener for ½"x6" wheels.
No. D 1355—Centering Machine, chuck capacity 2".

The Lodge & Shipley Machine Tool Co.
CINCINNATI, OHIO

Motors, Dynamos, Switchboards, Etc.

400 H. P. G. E. Induction Motor, 720 R. P. M., 2200 volts, complete.....$2000.00
75 H. P. Westinghouse, slip ring..... 425.00
75 H. P. G. E., slip ring, new, 850 R. P. M., complete..... 500.00
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1 100 K. W. 125-250-volt Sprague Generator, D. C. to 10 and 20x16 Ball & Wood Tandem Semi-Corliss Four-valve Engine.
Boilers, Gas Engines, Motors.
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30 new Lathes 14 to 20" in stock; immediate delivery.
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2 500-gal. 14"x7¼"x12" Underwriter's Fire Pumps.

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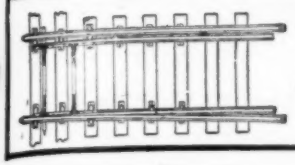

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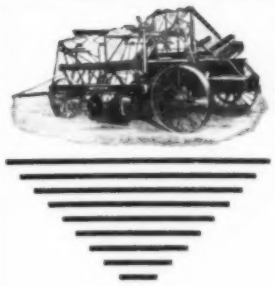

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must often work under specially difficult conditions, and must be suitably designed for the service if they are to prove economical and efficient.

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This locomotive was built by

The Baldwin Locomotive Works
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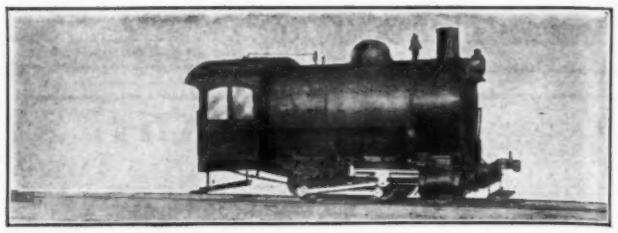

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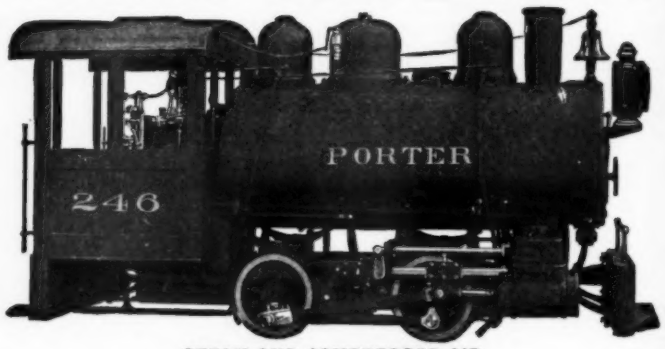

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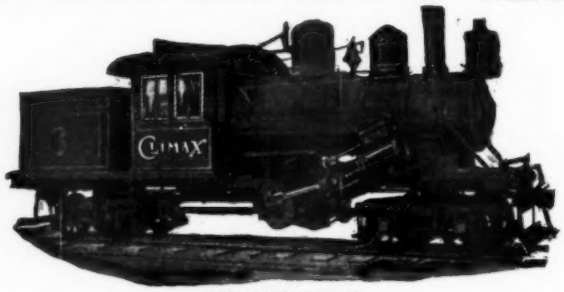

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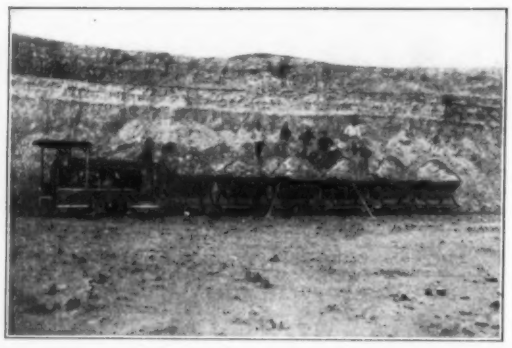

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in Factory Yards, Lumber Plants, Mines, Road Work and Excavation Work of all kinds there is an unsurpassed saving with the

PLYMOUTH Gasoline Locomotive

A Few of their advantages: (1) Simplicity—(2) Durability—(3) Economy—(4) Efficiency—(5) Low price and upkeep. Built in any gauge—20" to standard. Every bit of Mechanism on the Plymouth is a proven success.

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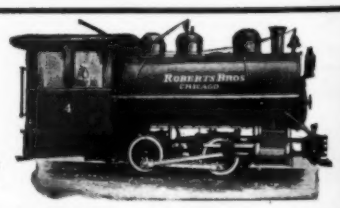

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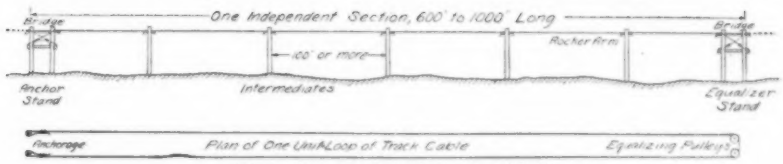
Fast Construction by Sections



One Loop Section or Unit

The LAWSON TRAMWAY, being normally built in short independent loop sections, lends itself very easily to rapid construction in the field. The diagram illustrates the general idea.

Each loop is of convenient length, determined by conditions, and may range from 600 to 1000 feet. The loops terminate in equalizer stands and anchor stands alternately placed.

In organizing to construct a tramway of say several miles in length the real unit of construction is not the whole tramway, but merely *one loop section.* As an extreme case, therefore, when plenty of help is available, the whole tramway can be built in the time that it takes to build *one loop,* simply by assigning a crew of three to five men to a single section—all under charge of a general foreman. Each crew, therefore, will have to build only one stand and from five to nine intermediate supports—and string and strain the cables thereon. Where the ground is open, and with easy digging, a week will usually suffice to build 1000 feet. The same operation being carried on simultaneously on all other sections—a separate crew in the meantime framing up and setting the two terminals—it follows that when sufficient help can be commanded a complete tramway of any practical length can be built in the time it takes to build one of its loop sections.

Of course things do not always work out as smoothly as this for rapid construction nor is it always economical or indeed necessary. The point is, however, that in emergency work the time of construction can be enormously shortened over that required for any other tramway which must necessarily be built as a whole.

Respectfully submitted,

AMBURSEN COMPANY, (Tramway Department)
61 Broadway, New York

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We manufacture steel cross ties and fastenings suitable for every kind of service.

Our heavy sections are used by steam and traction roads under most exacting conditions.

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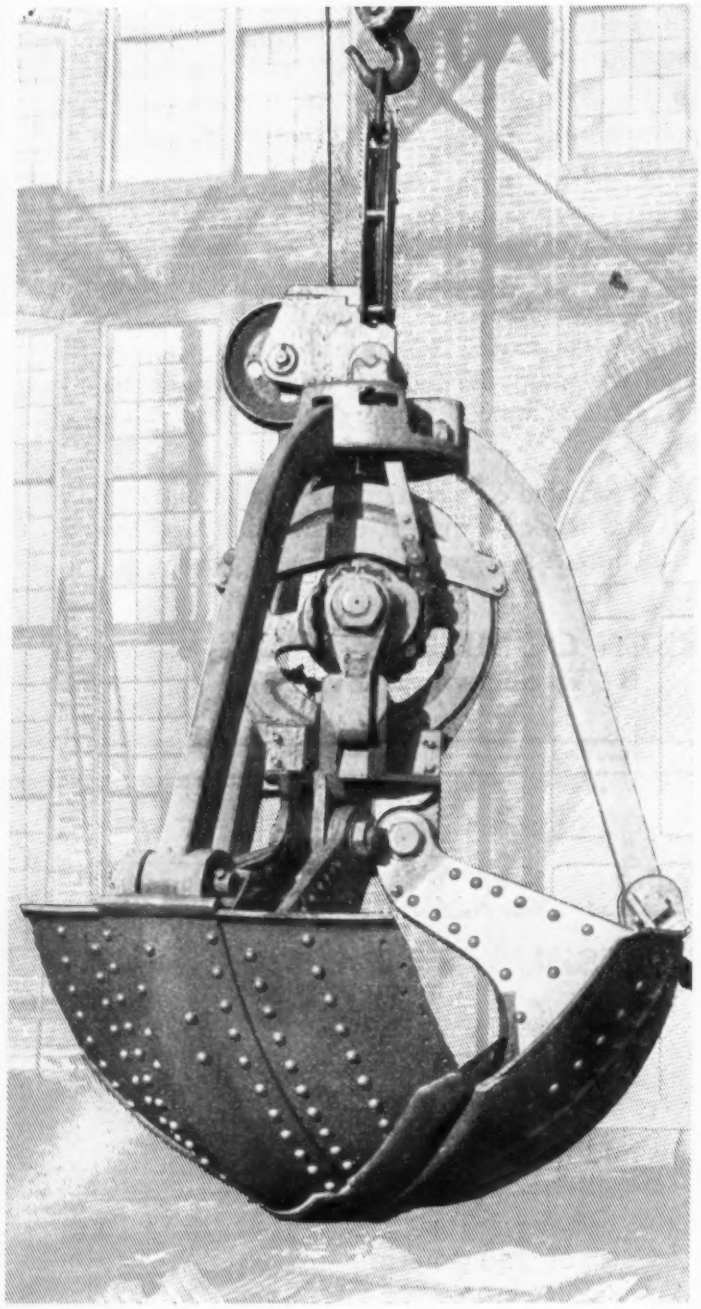
HAYWARD BUCKETS



This 5 cubic-yard, 3-blade Hayward Orange Peel Bucket, of extra heavy construction, was built for the dredging operation at the new Halifax Terminal, Halifax, N. S. This type of Bucket is not only an efficient digging machine but may also be used for handling large, heavy boulders.

Tell us your digging problems and we will send you pamphlets showing how others are solving similar ones.

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BYERS BABY Excavator and Ditcher

Invaluable for smaller ditching jobs; handling sand and gravel, loading and unloading, etc. It is light and portable, low upkeep and operating cost, needs no expert engineer and works rapidly. Byers Baby will save you money, Mr. Contractor.

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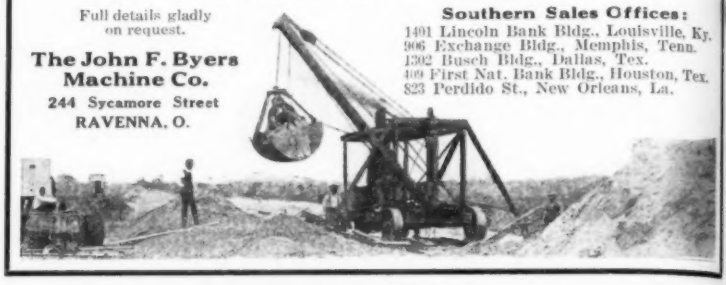

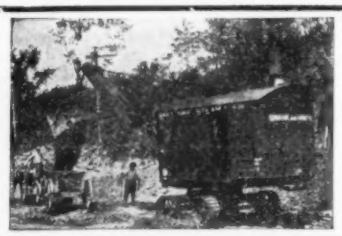

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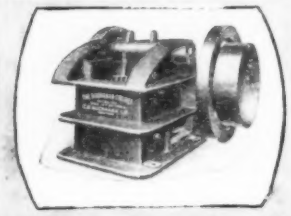

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Invaluable for Road Building, Railroad Construction, Wagon and Car Loading, Irrigation Work, etc. Only weighs 12 tons, making transportation easy and inexpensive. The "Economy" idea is the right idea in excavators. Backed by 15 years' successful experience.

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Successors to Gade Excavating Co.

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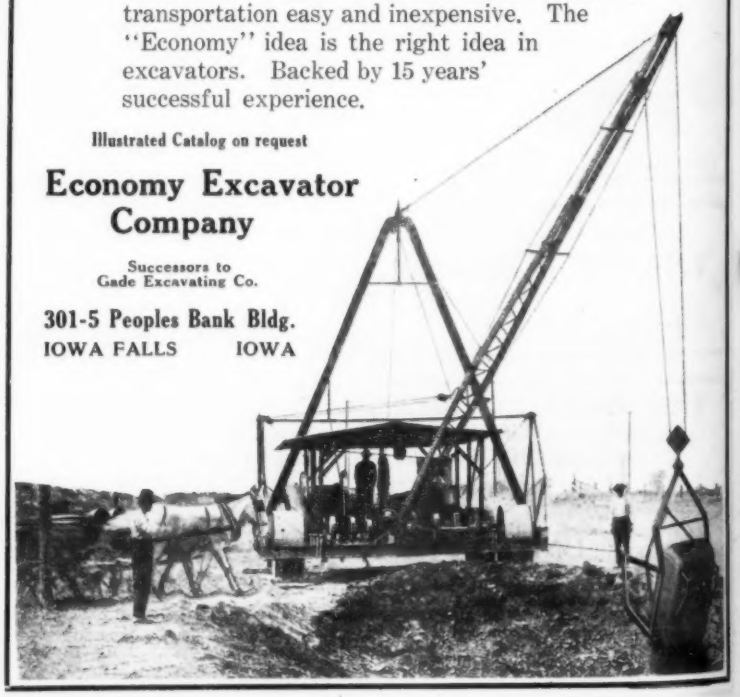

Fast Work in Swampy or Firm Soil Is Accomplished

with the Monighan Walking Excavator

No. 3-T Monighan Walking Drag-Line Excavator, equipped with 60 ft. Boom and 3 cu. yd. Page Scraper Bucket, going through a cornfield on its way from station to work near Elsberry, Mo. W. E. Callahan Construction Co., Contractors.

On swampy ground the "Walking Traction" of the newest Monighan Drag-Line Excavator does away with the need for planks, skids or track.

Trackmen on the ground around the machine are eliminated entirely. The rapid-traction feature cuts down the required boom length. Let us explain how. A great dirt-mover for Railroad, Levee, Drainage, Irrigation or Big Foundation Excavation.

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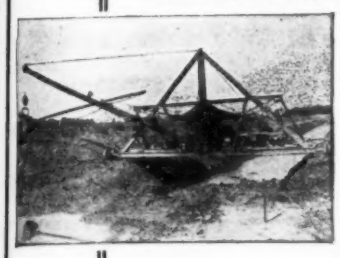
THE BAY CITY LAND DREDGE

can be used to a big advantage and profit. Also invaluable for water work, as dredge can be easily mounted on float. Can be dismantled, handled on wagons over country roads, reassembled at small cost and used to advantage on small jobs. Self-propelling, quick and economical in operation, low operating and maintenance costs, large capacity, gasoline-engine driven, are a few of its many advantages.



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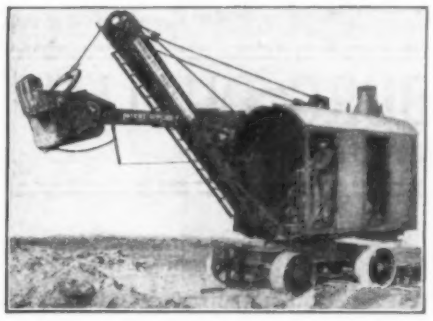

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New Bulletin just issued.

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SHELLERS, BRICKYARDS AND CEMENT WORKS

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The bucket shown above is one of eight WILLIAMS BUCKETS purchased and operated by The Columbia Digger Co., Portland, Ore. This bucket is digging a canal through a sand bar on the Columbia River at Rooster Rock. The material handled was a mixture of sand and clay, and they handled

2500 Yards Per Day of Ten Hours. Can You Beat It?

Williams buckets for every service, over 200 different sizes and types made. We can satisfy you if you will give us the opportunity.

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Do it now.

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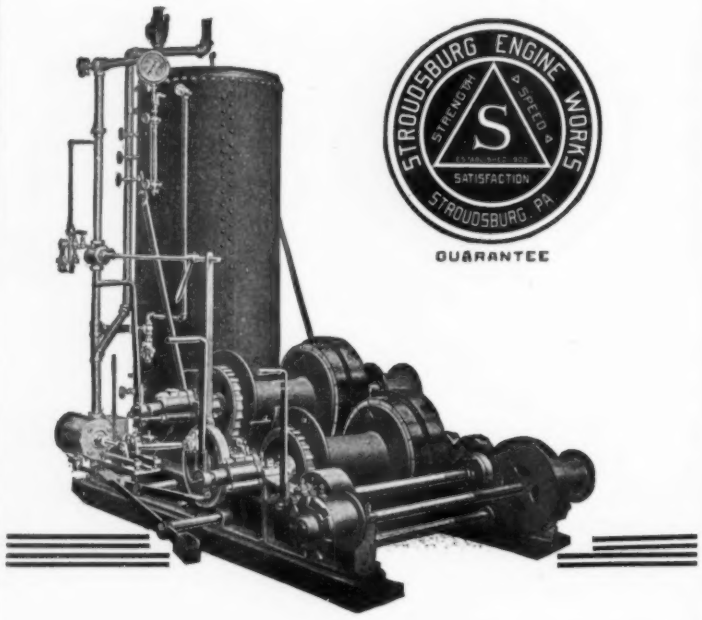

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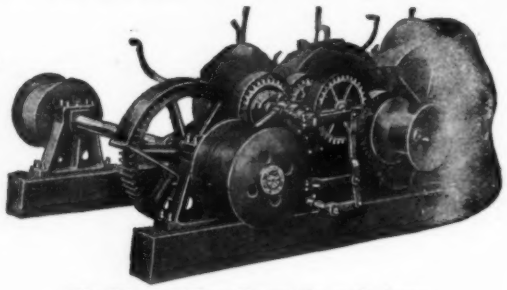

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This Swinger can be attached to any hoist. If your derrick work or contract requires a swinging boom, it will repay you to investigate.

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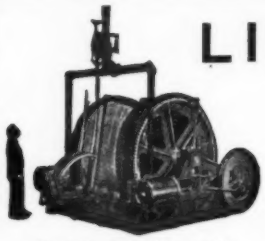

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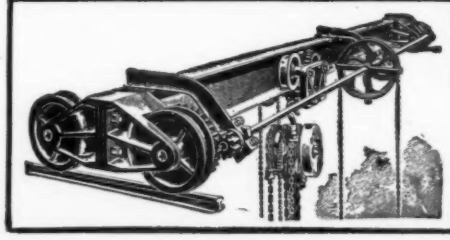

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We Make a Loader for Every Purpose, $325.00 Up
For Sand, Stone, Gravel, Coal, Coke, Etc.

We started the business and know it from every angle. Write for Catalog 210

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or any material can be loaded into your wagon or truck promptly, thus preventing **money loss from time lost.**

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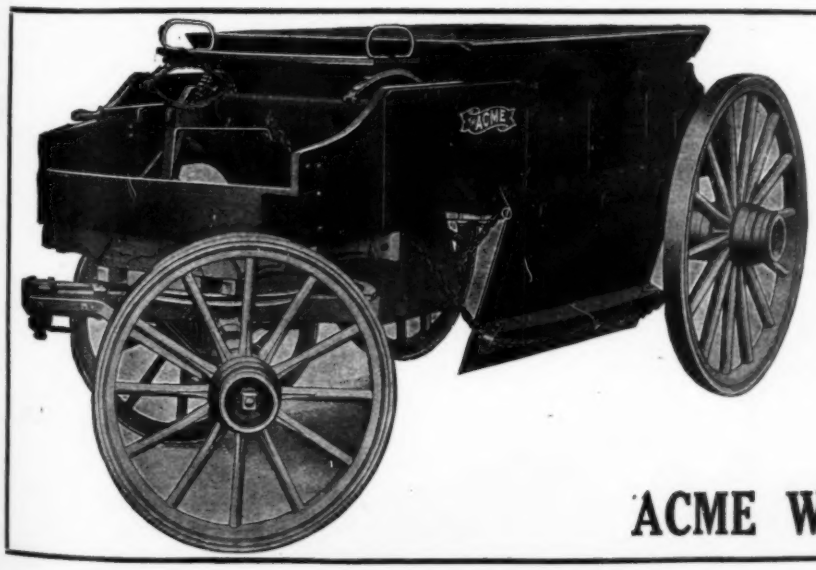

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A Few ACME Advantages

(1) Doors overlap each other, making them sand tight; (2) Doors and hinges made practically unbreakable by special method; (3) Stand up under hard usage, easily operated, and lightest running wagon on the market.

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This makes it evident that the life of the road is absolutely dependent upon the **continued** cementing power of the asphalt.

Oil asphalts and other substitutes for Bermudez Road Asphalt **quickly lose** their cementing power—however well they may test when they leave the refinery.

BERMUDEZ ROAD ASPHALT
"IT STAYS PUT"

Bermudez Road Asphalt **retains** its adhesiveness, cohesiveness and ductility.

This is why it builds the roads of longest life—

A life so long as to **much more than compensate** for the first cost of Bermudez as compared with the cheaper substitutes for natural lake asphalt.

Send for 1915 specifications covering construction features of, as well as asphaltic materials for, roads of all types.

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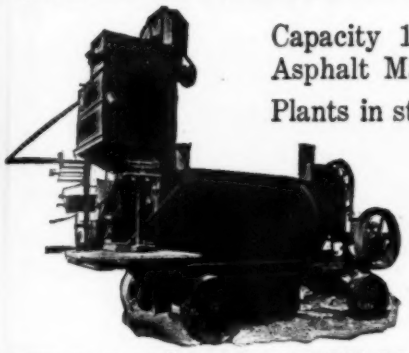

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Plants in stock.

Make test before buying.

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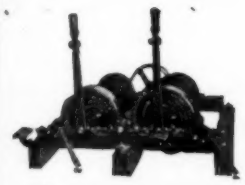

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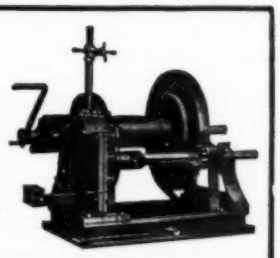

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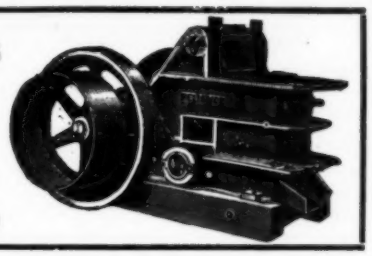

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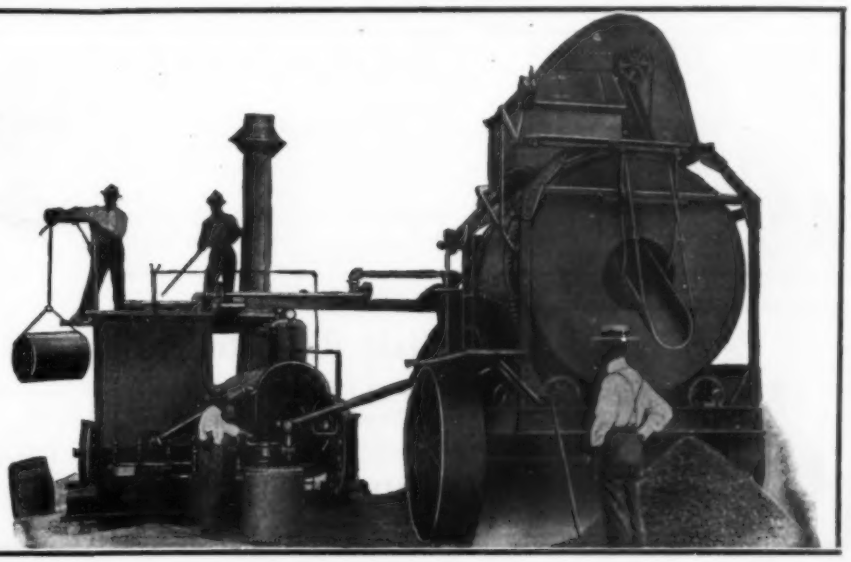

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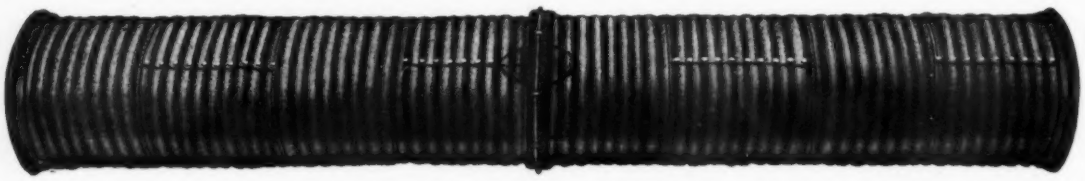

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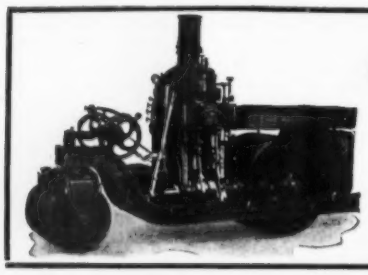

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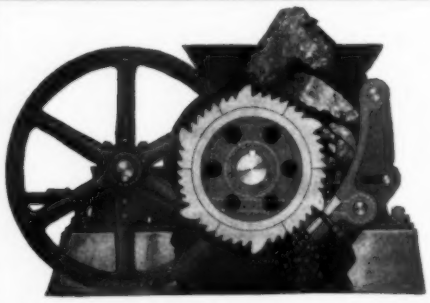

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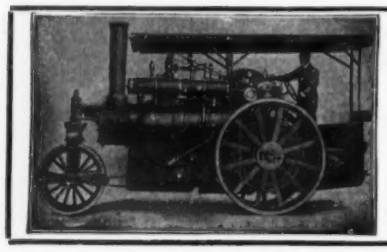

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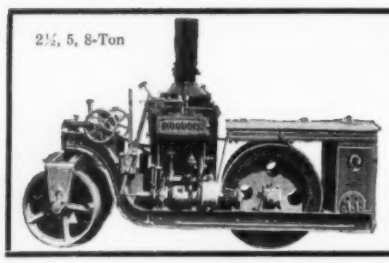

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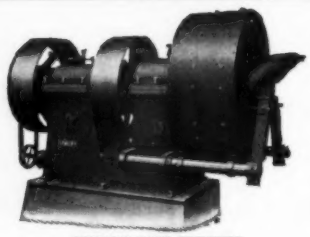

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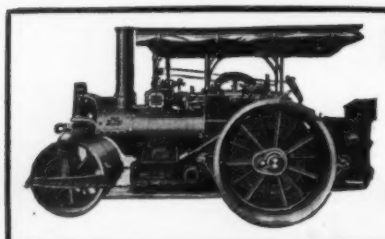

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Yes, it must be admitted that there are a good many.

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None Whatever

This Kind Is

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Anybody can learn from personal experience. The wise man is he who learns from the experience of others.

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Resists Rust

Cincinnati, Ohio

How the C. M. & St. Paul solved the problem of high freight and teaming charges on culvert construction

In the Railway Age Gazette, April 2, in an article descriptive of the construction of a new line from Lewiston, Montana, to Great Falls, it is stated that "because of the high freight and teaming charges on cast iron pipe, careful attention was given to the selection of the materials for small culvert openings, up to 42" in diameter. For fills up to 6 ft. in height

"ACME" (NESTABLE)

Corrugated Iron NO-CO-RO Metal Culverts

were used." Economy was the first object. Speed, the second. The manner in which "ACME" Culverts can be nested for shipment greatly reduces the cost per ton-mile. The manner in which the most ignorant laborer can set them up in the trench reduces installation costs and time figures. One railroad reports that it cost them but $1 per ton-mile to haul "ACME" (Nestable) Corrugated Culverts. Catalog G-9 is what you need.

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MANUFACTURERS
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Low relative prices and high quality won't mix.
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Pure Iron; K. T. Water Gates for Irrigation; Silos; "The Lennon Metal Flume."

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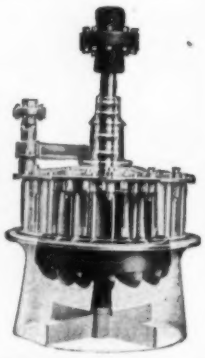

If you are contemplating the development or improvement of a water-power it is to your interest to write us. Our competent hydraulic engineers shall be glad to give you any information that you may need about the installation of water turbines.

Samson Turbines use the water economically; the speed is quick and steady; they develop great power.

Write us today for catalog.

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For Factory Water Supply Systems

Have your own Water Supply System by installing a Myers Power Pump or Working Head. This would further utilize the power you already have and greatly reduce overhead expense. The first cost would be practically the only cost, for Myers Power Pumps give long years of satisfactory service. They are made in many styles and sizes, for shallow and deep well service. Each pump is complete in itself and can be installed without the aid of a skilled mechanic.

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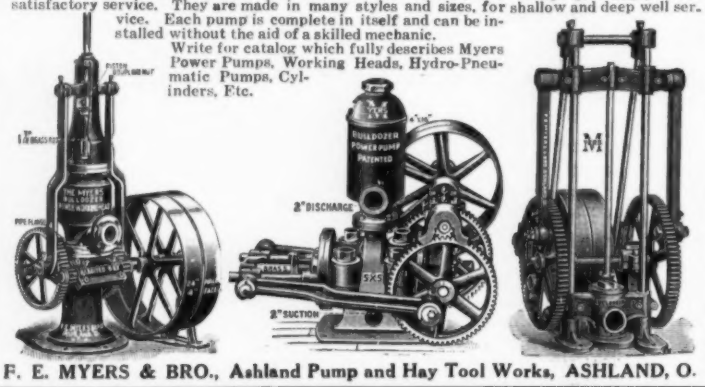

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DEEP WELL PUMPS
Steam or Electric Driven, or geared from shaft, are offered for service in elevating large quantities of water from deep Artesian Wells. Single Stroke Pumps for lighter deep well work. Catalog No. 6.
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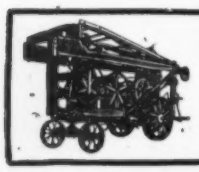

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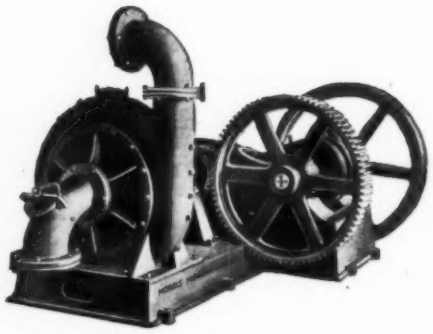

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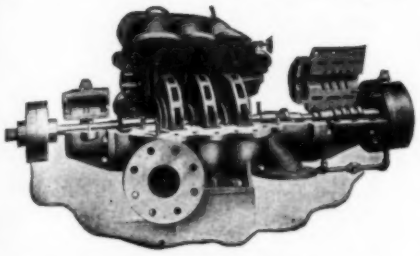

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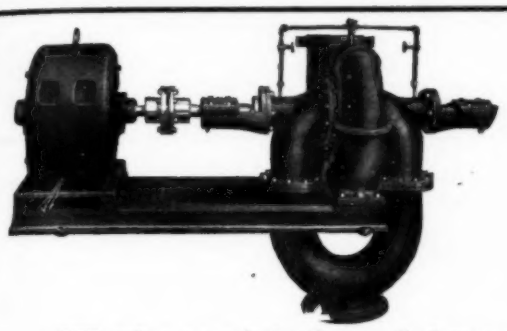

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Fitted with RING-OILING OUTBOARD BEARINGS and FLEXIBLE COUPLING like illustration

Will solve your irrigating or drainage problems. It will run 24 HOURS A DAY and seven days a week without stopping; or better, if required. It is the most dependable pump at a reasonable price on the market.

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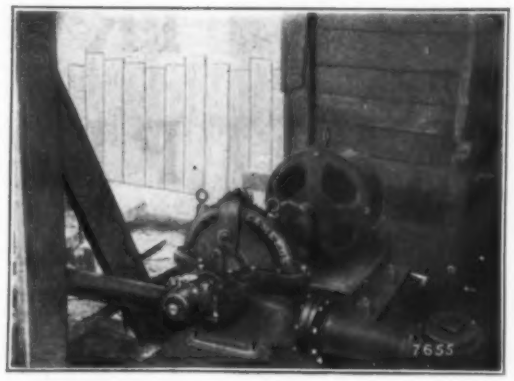
The Slogan of the Cameron—"Character: The Grandest Thing."

On the Hard Contracting Job

CAMERON CENTRIFUGALS



On the hard contracting job there is a steadily increasing volume of water to pump out—there pumping reliability and efficiency show to the best advantage, and there **Cameron Centrifugals** have proved their superiority even more than in other situations. Read the following evidence from the Superintendent of a large Coal Company:

"It may please you to learn that the Cameron Centrifugal recently installed in our Lee shaft to take the place of the (naming a leading make), which was worn out in three months—running under the same conditions and driven by the same motor—delivers 20% more water than the other pump did when new."

This Cameron Centrifugal is a Double Suction Volute, as shown in the illustration.

It will pay you to investigate this Cameron superiority.

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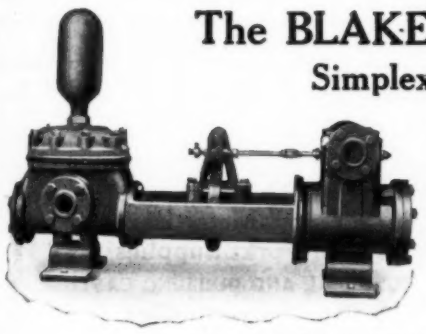
11 Broadway, NEW YORK **Offices the World Over**



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are best for your use, whatever the service may be.

Full lines for pressure, Tank, Vacuum and Air.

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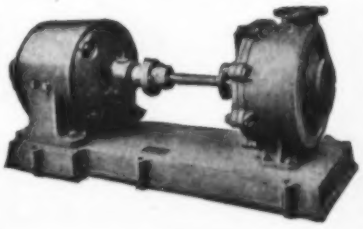
For Pumping Sandy Water Sewage, Drainage, Gravel, Etc.

Whenever and wherever you have a pumping job to do where liquids containing a large percentage of foreign matter must be handled, you need this

HOLLAND MAMMOTH CENTRIFUGAL PUMP

It's especially designed for that sort of thing, and saves you a lot of trouble and expense trying to do the job with ordinary pumps. The best economy is to use the right pump first. Get details.



Pumps for All Purposes

Holland Machine Co.

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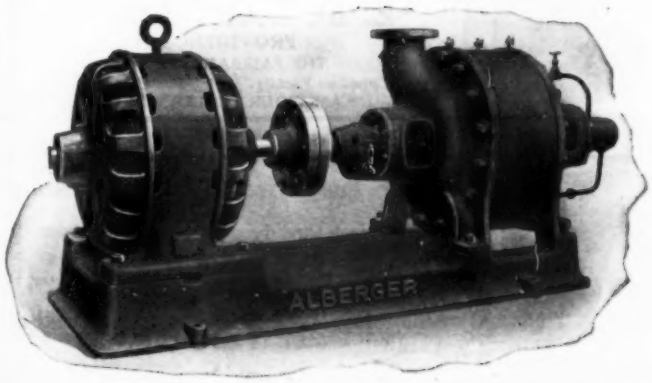
ALBERGER CENTRIFUGAL PUMPS



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These pumps are suitable for operation against high heads.

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For whatever purpose used, Cast Iron Pipe will outlast any known substitute, and in the final reckoning will be found the most economical.

Let us prove it—it will cost you nothing to investigate, and probably will save you money.

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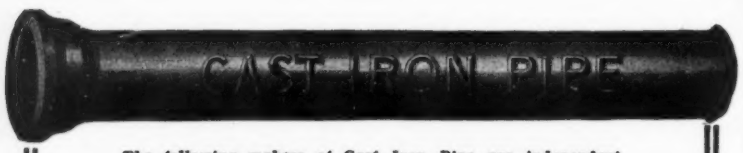

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Lynchburg Foundry Co.
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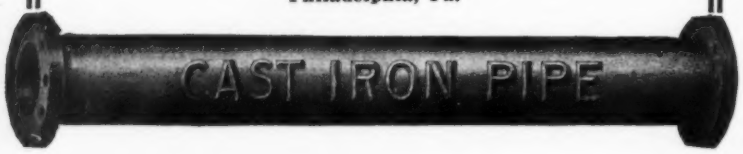

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You can save this by installing 48-inch or $10,000.00 per mile by installing 24-inch

WYCKOFF WOOD PIPE

and it lasts as long as Cast Iron Pipe. It's easier and cheaper to lay. Will not freeze. When new, delivers 15 to 10% more water than Cast Iron Pipe, and the longer it is used the less friction loss. Get full details in our catalog.

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Machines

All Sizes for Pipe Mills Gas and Steam Fitters

This cut shows our 2 A Improved Pipe Threading, Cutting and Nipple Machine. Range ½ to 2, inclusive. Pipe can be gripped or loosed without stopping the chuck, by a simple movement of the lever.

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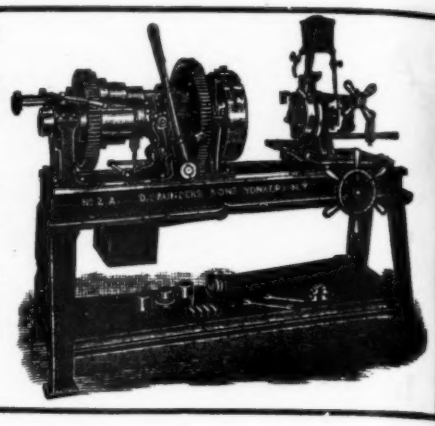

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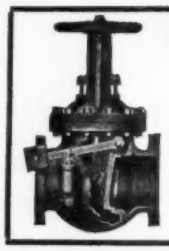

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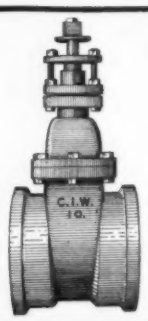

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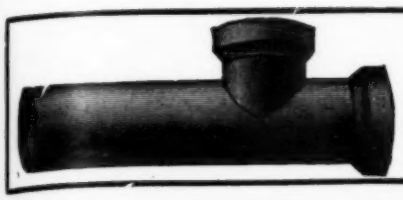

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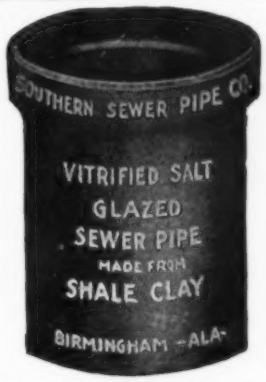

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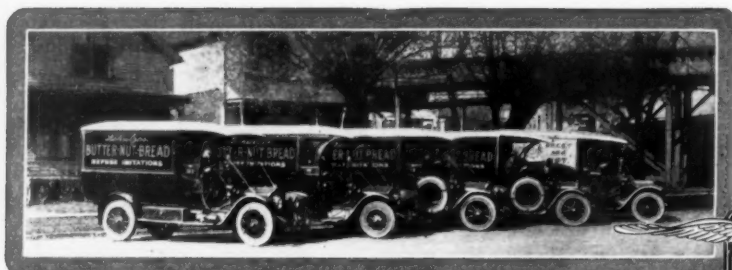

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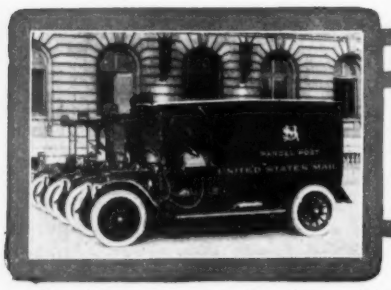

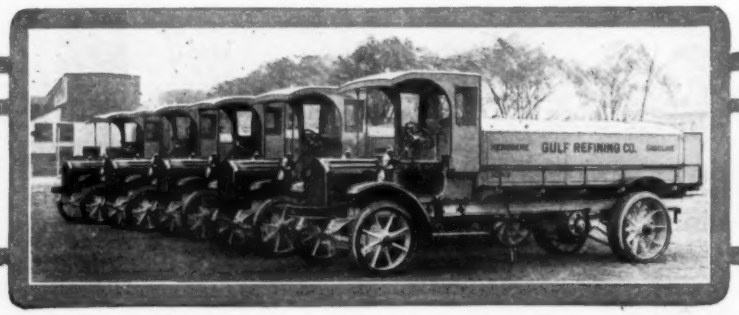

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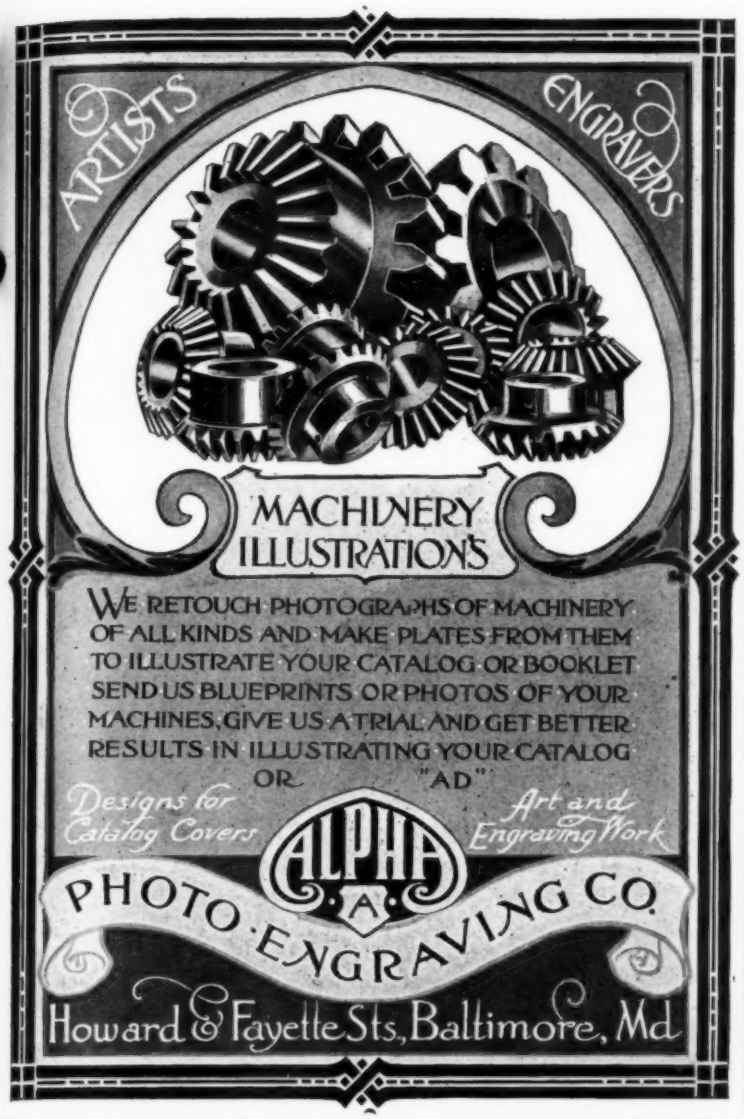

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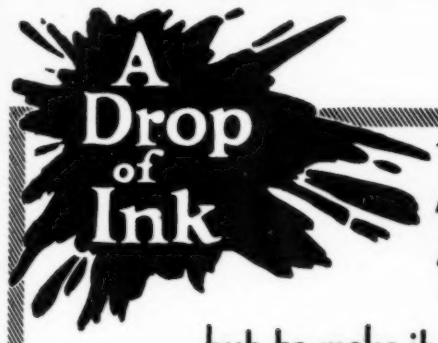

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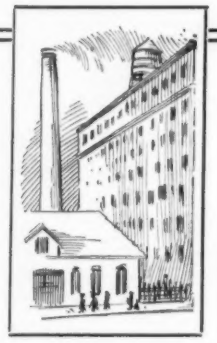

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Write for information.

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Will be glad to confer with interested parties regarding excellent location for hosiery mill. Splendid building how ready for machinery.

Healthful location, ample supply of labor, citizens of community interested in seeing development made.

Seaboard Air Line Railway

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Fine Factory Sites

At Belle Isle, Richmond, Virginia

Low Cost **Cheap Electric Power** **Good Labor Supply**

Complete Water and Rail Transportation Facilities

WITHIN the past year this company has developed a very fine hydro-electric plant at Belle Isle in the corporate limits of the City of Richmond, and it controls about fifty acres of land on the island which is admirably adapted for manufacturing sites.

Belle Isle lies in the James River, between Richmond and South Richmond, and is connected on each side by highway and railroad bridges.

In addition to cheap electric power, factories locating here will have splendid transportation facilities, both rail and water, free water from the James River and an excellent labor supply to draw from.

The bridges reaching this property are private and watchmen stationed on them keep idlers and other disturbing elements from interfering with employees.

Richmond has five important trunk line railroad systems which afford the best of facilities for reaching all parts of this country, while water shipment by the James River to Norfolk provides an outlet to coastwise trade and to the markets of the world.

In both Richmond and South Richmond is an abundance of good labor and the private highway bridges from each city give ready access to the property.

We are now ready to consider favorably making leases at a nominal charge for a term of years subject to renewal for manufacturing enterprises locating on Belle Isle and contracting for electric power.

The complete manufacturing requirements offered by this property are worthy of your special investigation. Any facts desired will be gladly furnished.

Virginia Railway and Power Company

Richmond, Virginia

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, Southern Illinois, Southern Indiana

What We Offer You

THERE are millions of acres of the most productive farm, pasture and orchard lands in the South offering distinct advantages to homeseekers. Good farmers can make more money in the South from the labor and capital invested than elsewhere in America. Careful investigation will prove this and also that the most pleasant, healthful home conditions are in this section. One can find no better region for dairying, or for poultry and live stock raising. Abundant grasses and forage plants, pure water, the long grazing seasons, the low cost of production and the good markets make the South unequalled today in opportunities for these industries. Nearly all authorities who have studied the situation agree that this is so. For fruit and truck raising, for general or special farming, there are all conditions for success. Lands in good locations are to be had at lowest prices for equally productive lands anywhere.

The South not only offers the opportunity for farm homeseekers, but needs them. The Southern Railway Lines want settlers in their territory who can turn the available lands into highly productive places to furnish the foodstuffs necessary for the South itself and to take advantage of the outside markets which may be supplied. They are anxious to build up their territory as part of their efforts to make their own properties more productive.

For this reason their Industrial and Agricultural Department is maintained. Its co-operation is offered in every way possible to the homeseeker who will investigate the opportunities of the South; every assistance is extended which will enable him to find the location where are the home conditions he desires and which will give him prosperity. Immigration agents will advise with him. The information about lands, crops and the various sections and conditions along the roads, carefully collected by the companies, is at his command. Careful attention will be given to secure for him the special information desired on particular subjects or localities. Booklets and other printed matter will be sent on application.

After the homeseeker is located, trained and practical agricultural field agents, live stock, dairy and poultry agents familiar with local conditions will be at his service in solving any of the problems which his new location may bring. Market agents will help him to find the best market for his products.

What we do for the homeseeker, we also do for the manufacturer looking for a location for his plant. Industrial agents will help him solve the questions as to the proper point where raw materials may be satisfactorily assembled; where labor, power, transportation and market conditions are best; where necessary lands are properly located and to be had; where local capital, if wanted, will join in building the plant, and where all the other conditions which help to make the success of the industry and the welfare of its labor are to be found.

We offer our services in behalf of a territory reached by nearly 10,000 miles of railway, the people of that territory and a company which is earnestly at work in co-operation with every person or interest affected to build up the territory and advance the fortunes of those who are developing the lands and the many opportunities in the South.

Southern Railway
Southern Railway in Mississippi
Mobile & Ohio Railroad
Georgia Southern & Florida Ry.
Virginia & Southwestern Ry.
Augusta Southern Railroad

M. V. RICHARDS
Industrial and Agricultural Commissioner
WASHINGTON, D. C.

Danville & Western Railway
Tallulah Falls Railway
Blue Ridge Railway
Hawkinsville & Fla. South'n. Ry.
Macon & Birmingham Railway
Northern Alabama Railway

The European War by greatly diminishing the supply of many chemical products needed by industries of America, emphasizes the importance of raw material for varied chemical plants along the Clinchfield, which is justly called

A Railway of Chemical and Mineral Resourses

Nature has been lavish along the line of this railway, and the wide distribution and superior quality of the minerals in the Clinchfield territory give promise of ample returns to those who will develop and fabricate these products for the use of man.

Their value to the Arts and Manufactures can be easily established and their application in many industries awaits the progressive factor who recognizes the future supremacy that is rapidly coming to the Industrial South.

The Clinchfield territory contains the following minerals which can be developed profitably:

Kaolin	**Talc**	**Slate**	**Limestone**
Marble	**Mica**	**Rutile**	**Soapstone**
Quartz	**Zinc**	**Asbetos**	**Silica Sand**
Barytes	**Coal**	**Chromite**	**Manganese**
Bauxite	**Lead**	**Dolomite**	**Soda Feldspar**
Tripoli	**Ochre**	**Monazite**	**Potash Feldspar**

Some of these may be suitable to your industry.

Perhaps you are seeking a better and cheaper source of some of the above materials, raw or prepared.

Or an expansion of your present business by establishing a plant in the South.

Or a location for a new industry which gives promise of a large and progressive market.

Excellent transportation facilities, ideal climate and good labor conditions, abundance of raw materials, cheap fuel, water-powers and low freight rates combine to present the attractive advantages offered in the Clinchfield territory.

Manufacturers and investors will be given every opportunity and assistance in the investigation of the mineral resources along this railroad.

Carolina, Clinchfield & Ohio Rwy.

"THE ROAD OF OPPORTUNITY"

R. F. BREWER, Industrial Agent **Johnson City, Tenn.**

DAIRYING PROFITABLE IN FLORIDA

Florida needs thousands of intelligent dairy farmers who will make the most of the unparalleled advantages that this State has to offer them.

Every year more than a million dollars is sent to other States to pay for needed dairy products, when it is a matter of common knowledge among Florida dairymen that conditions in this State are favorable not only to the production of all the milk and cream used, but with proper effort Florida can produce immense quantities for export.

A FLORIDA DAIRY HERD OF JERSEYS

In the first place, the protein feeds necessary to feed dairy stock can be grown in Florida in great profusion and in great variety. Cowpea hay, analyzing sixteen per cent. protein, is equal pound for pound to the best bran. Velvet bean hay and beggarweed are also high in protein content. In carbohydrate feeds we have an abundance in Japanese cane, sweet potatoes, cassava and others. There are any number of other feed crops and pasture grasses in addition to corn silage that can be produced in quantities in nearly all parts of the State.

No greater opportunity exists in Florida today than that which is open to the dairy farmer: The supply of dairy products is always far short of the demand, necessitating, as stated above, sending out of the State over one million dollars a year for such products.

A splendid home market, therefore, is awaiting those who will take advantage of Florida's opening for dairy farming.

"Live Stock Farming in Florida" is the title of an interesting illustrated booklet containing a fund of authentic data and information on this subject. We will gladly send it to those desiring to investigate this opportunity.

FLORIDA EAST COAST RAILWAY

(FLAGLER SYSTEM)

J. E. INGRAHAM, Vice-President **ST. AUGUSTINE, FLA.**

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The Progressive Railway of the South

Announces the Establishment of Attractive Round-Trip Homeseekers' Rates to Progressive Florida.

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	TICKETS GOOD FOR 21 DAYS	
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Live Oak, Lake City, McClenny, Glen St. Mary	$22.65	$27.10
Quincy	24.55	25.60
Tallahassee	24.45	25.60
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Ocala, Orlando, Oveido, Leesburg, Tavares	25.00	30.00
POLK COUNTY HIGHLANDS		
Bartow and Lake Wales	25.00	30.00
PEERLESS PINELLAS		
St. Petersburg, Clearwater, Tarpon Springs, Elfers via Tampa	25.00	30.00
THE FAMOUS MANATEE COUNTY		
Palmetto, Parrish, Terra Ceia, Bradentown, Bee Ridge, Oneco, Manatee, Sarasota, Venice	25.00	30.00
HILLSBOROUGH COUNTY		
Tampa, Plant City	25.00	30.00

These tickets will be on sale at Washington, D. C. and Cincinnati, Ohio, on FIRST and THIRD TUESDAYS in each month—good for 21 days. You can stop at Jacksonville, Florida's greatest city. It will repay you. Stop-overs also south of Jacksonville going and returning.

The rates and service from the Nation's Capital, WASHINGTON, offers splendid opportunity to the people from the Eastern States to make a Florida trip cheaply and comfortably.

The CINCINNATI rates offer a similar opportunity to the people of the Central States. You can find attractive openings in the progressive State of Florida. We shall be glad to answer your inquiry for complete information.

SEABOARD AIR LINE RAILWAY

The Progressive Railway of the South

J. A. PRIDE, General Industrial Agent **NORFOLK, VIRGINIA**

Abrasive Materials.
Carborundum Co., Niagara Falls, N. Y.
Vitrified Wheel Co., Westfield, Mass.

Accountants.
Armstrong, Allan Gordon, Norfolk, Va.
Baltimore Audit Co., Baltimore, Md.
Black & Co., Baltimore, Md.
Buck, Chester H., Chattanooga, Tenn.

Accumulator. (Hydraulic.)
The French Oil Mill Mchy. Co., Piqua, Ohio.

Agricultural Implements.
Myers & Bro., F. E., Ashland, O.

Air Compressors. (Stationary and Portable.)
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Chicago Pneumatic Tool Co., Chicago, Ill.
Clayton Air Compressor Plant, Cambridge, Mass.
De La Vergne Machine Co., New York, N. Y.
General Electric Co., Schenectady, N. Y.
Laidlaw-Dunn-Gordon Plant, Cincinnati, Ohio.
Sullivan Mchry. Co., Chicago, Ill.

Aluminum Products. (Bars, Sheets, Tubes.)
Aluminum Company of America, Pittsburgh, Pa.

Ammonia Valves and Fittings.
Frick Co., The, Waynesboro, Pa.
York Mfg. Co., York, Pa.

Anti-Friction Metals.
Bailey Lebby Co. Charleston,, S. C.

Architects.
Diehl, Wm. Newton, Norfolk, Va.
Gatlin, W. R., Hopkinsville, Ky.
Grimmer & Toussaint, Tampa, Fla.
Kimball, Herbert S., Boston, Mass.
Milburn, Heister & Co., Washington, D. C.
Stirine, J. E., Greenville, S. C.

Architects' Supplies.
Starrett Co., L. S., Athol, Mass.
Weber & Co., F., Philadelphia, Pa.

Architectural Iron Work.
Bolles Iron & Wire Wks., J. E., Detroit, Mich.
Chesapeake Iron Works, Baltimore, Md.
Dietrich Brothers, Baltimore, Md.
Schreiber & Sons Co., The L., Cincinnati, O.
Snead Architectural Iron Wks., Louisville, Ky.

Arc. Lamps. (See Lamps) [Arc and Incandescent.]

Art Glass.
Binswanger & Co., Memphis, Tenn

Asbestos.
Asbestos Protected Metal Co., Pittsburgh, Pa.
Southern Asbestos Mfg. Co., Inc., Richmond, Va.

Asbestos Products.
Asbestos Protected Metal Co., Pittsburgh, Pa.
Johns-Manville Co., H. W., New York, N. Y

Asphalt.
Barber Asphalt Paving Co., Philadelphia, Pa.
Gulf Refining Co., Pittsburg, Pa.
Standard Oil Co., Inc., Newark, N. J.
Texas Co., The, Houston, Tex.
U. S. Asphalt Refining Co., New York, N. Y

Asphalt Mixers.
Erie Machine Shops, Erie, Pa.
Equitable Asphalt Maintenance Co., Kansas City, Mo

Asphalt Surface Heaters.
Equitable Asphalt Maintenance Co., Kansas City, Mo

Asphalt Paving Plants.
Barber Asphalt Paving Co., Iroquois Works, Buffalo, N. Y.
Cummer & Son Co., F. D., The., Cleveland, Ohio.

Asphalt Paving Repair Plants.
Equitable Asphalt Maintenance Co, Kansas City, Mo.

Auditors.
Armstrong, Allan Gordon, Norfolk, Va.
Baltimore Audit Co., Baltimore, Md.
Black & Co., Baltimore, Md.
Buck, Chester H., Chattanooga, Tenn.

Automobile. (Gasoline Passenger.)
White Co., The, Cleveland, Ohio

Automobiles (Second Hand.)
Mar-Del Mobile Co., Baltimore, Md.

Axles. [See Car Wheels, Axles and Trucks.]

Babbit Metal. [See Anti-Friction Metal.]

Ballast. (Railroad.)
American Ballast Co., Knoxville, Tenn.
Bald Mountain Quarry, Newson, N. C.
Chicamauga Quarry & Const. Co., Chattanooga, Tenn.
Kirkpatrick Sand & Cement Co., Birmingham, Ala.
Weston & Brooker Quarry Co., Columbia, S. C.

Bankers and Brokers.
Delaware Trust Co., Wilmington, Del.
Edwards, Geo. B., New York, N. Y.
Electric Bond & Share Co., New York, N. Y.
Halsey & Co., N. W., New York, N. Y.
Leach & Co., A. B., New York, N. Y.
Mercantile Trust & Deposit Co., Balto., Md.
New First National Bank, Columbus, O
Nuveen & Co., John, Chicago, Ill.
Peabody, Houghteling & Co., Chicago, Ill.
Powell, Garard & Co., Chicago, Ill
Provident Savings Bank & Trust Co., Cincinnati, O
Southern States Developm't Co., New York, N. Y.

Banks.
First Nat'l Bank, of Key West, Key West, Fla.
First National Bank, Richmond, Va.
Merchants-Mechanics' Nat'l Bank, Baltimore, Md.
New First National Bank, Columbus, Ohio.
National Exchange Bank, Baltimore, Md.
Provident Savings Bank & Trust Co., Cincinnati, O.

Bank and Office Railings and Grilles. (Iron)
Bolles Iron & Wire Wks., J. E., Detroit, Mich
Chesapeake Iron Works, Baltimore, Md.
Cincinnati Iron Fence Co., Cincinnati, Ohio.
Dow Wire & Iron Works, Louisville, Ky.
Dufur & Co., Baltimore, Md.
Dufur, Baggott & Co., Baltimore, Md.
Eureka Supply Co., Chattanooga, Tenn.
Meyers Mfg. Co., F. J., Hamilton, O.
Ohio Elevator & Machine Co., The, Columbus, O.

Barges. (Steel.)
American Bridge Co., of New York, N. Y.

Bar Iron. (Refined and Galvanized.)
Bourne-Fuller Co., The, Cleveland, Ohio.
Carnegie Steel Co., Pittsburgh, Pa.
Lackawanna Steel Co., Lackawanna, N. Y.

Bars. (Steel, Rounds, Flats and Squares.)
Gulf States Steel Co., Birmingham, Ala.
Pardee Works, C., Perth Amboy, N. J.

Bars, Wire, Wire Fabric, etc. (For Reinforced Concrete.)
Cincinnati Iron & Steel Co., Cincinnatti, O.
Corrugated Bar Co., Buffalo, N. Y.
Hoffman & Co., Inc., R. C., Baltimore, Md.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Laclede Steel Co., St Louis, Mo.

Bearings. (Graphite and Bronze.)
Graphite Lubricating Co., Bound Brook, N. J.

Bearings. (Oilless.)
Graphite Lubricating Co., Bound Brook, N. J.
Metaline Co., Long Island City, N. Y.

Bedford Stone
Bedford Steam Stone Works, Bedford, Ind

Belting. (Leather, Canvas, Rubber.)
American Supply Co., Providence, R. I.
Bailey-Lebby Co., Charleston, S. C.
Baltimore Belting Co., Baltimore, Md.
Cameron & Barkley Co., Charleston, S. C
Chesapeake Belting Co., Baltimore, Md.
Druid Oak Belting Co., Inc., Baltimore, Md
Freadrich Belting Co., St. Louis, Mo.
Gandy Belting Co., Baltimore, Md.
Goodyear Tire & Rubber Co., Akron, Ohio.
Graton & Knight Mfg. Co., Worcester, Mass.
Main Belting Co., Phila., Pa.
Schieren Co., Chas. A., New York, N. Y.
Smith-Courtney Co., Richmond, Va.

Belting. (Chain.)
Bartlett & Snow Co., C. O., Cleveland, O.
Caldwell & Sons Co., H. W., Chicago, Ill.
Jeffery Mfg. Co., Columbus, O.
Link-Belt Co., Philadelphia, Pa

Belt Cement.
Graton & Knight Mfg. Co., Worcester, Mass.

Belt Conveyors.
Jeffrey Mfg. Co., Columbus, O.

Belt Dressing.
Dixon Crucible Co., Joseph, Jersey City, N. J
Gandy Belting Co., Baltimore, Md.
Graton & Knight Mfg. Co., Worcester, Mass.

Belt Lacing. (Leather.)
Graton & Knight Mfg. Co., Worcester, Mass.

Belt Lacing and Supplies. [See Belting. Leather, Canvas, Rubber.]

Bicarbonate Soda. (Sap Stain Lumber Dip.)
Church & Dwight Co., New York, N. Y

Billets. (Basic Open Hearth Quality.)
Gulf States Steel Co., Birmingham, Ala

Blackboards. (Slate.)
East Bangor Con. Slate Co., The, East Bangor Pa.
Johnson, E. J., New York, N. Y.

Blocks. (Paving Creosoted.)
American Creosote Works, New Orleans, La.

Block Fillers
Barber Asphalt Paving Co., Philadelphia, Pa.
Barrett Mfg. Co., Phila. Pa.
Standard Oil Co., Newark, N. J.
U. S. Asphalt Refining Co., New York, N. Y

Blowers and Exhaust Fans.
American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
General Electric Co., Schenectady, N. Y.
Green Fuel Economizer Co., Matteawan, N. Y.
Raymond Bros. Impact Pulv. Co., Chicago, Ill.
South Atlantic Blow Pipe & Sheet Metal Co., Savannah, Ga.
Sturtevant Co., B. F., Hyde Park, Boston, Mass.

Blueprinters.
Childrey Co., Richmond, Va

Boilers.
Babcock & Wilcox Co., New York, N. Y.
Cameron & Barkley Co., Charleston, S. C.
Casey-Hedges Co., Chattanooga, Tenn.
Chattanooga Boiler & Tank Co., Chat'n'ga, Tenn
Chicago House Wrecking Co., Chicago, Ill.
Coatesville Boiler Works, Coatesville, Pa.
Cole Mfg. Co., R. D., Newnan, Ga.
Hartley Boiler Works, Montgomery, Ala.
Keeler Co., E., Williamsport, Pa.
Lookout Boiler & Mfg. Co., Chattanooga, Tenn.
Lombard Iron Works, Augusta, Ga.
Mecklenburg Iron Works, Charlotte, N. C.
Murray Iron Works, Burlington, Ia.
Phoenix Iron Works Co., Meadville, Pa.
Schofield Iron Works, Macon, Ga.
Southern Engine & Boiler Works, Jackson, Tenn.
Southern Boiler & Tank Works, Memphis, Tenn.
Valk & Murdoch Iron Works, Charleston, S. C.
Vogt Machine Co., Henry, Louisville, Ky.
Walsh & Weidner Boiler Co., Chattanooga, Tenn.
Zeinicker Supply Co., Walter A., St. Louis, Mo.

Boiler Covering.
Chesapeake Roofing & Pipe Covering Co., Inc., Baltimore, Md.

Boiler Graphite.
Dixon Crucible Co., Joseph, Jersey City, N. J.

Boiler Tubes. [See Tubes, Boiler.]

Bolts, Nuts, Rivets, Studs and Washers.
Progressive Mfg. Co., Torrington, Conn.
Republic Iron & Steel Co., Youngstown, O.
Upson Nut Co., The, Cleveland, O.

Bonds. (Surety, etc.)
Fidelity & Deposit Co. of Balto., Baltimore, Md.

Bottling Outfits.
Vilter Mfg. Co., Milwaukee, Wis.

Brass Goods.
Bailey-Lebby Co., Charleston, S. C.
Buckeye Iron & Brass Works, Dayton, O.
Lunkenheimer Co., The, Cincinnati, Ohio
Powell Co., Wm., Cincinnati, O.

Brass Railing and Grilles.
Newman Mfg. Co., Cincinnati, Ohio

Brewers' Machinery.
Vilter Mfg. Co., Milwaukee, Wis.

Brick. (Acid.)
Hood Brick Co., B. Mifflin, Atlanta, Ga.

Brick. (Building.)
Am. Enameled Brick & Tile Co., New York, N. Y
Brookhaven Pressed Brick & Mfg. Co., Brookhaven, Miss.
Hood Brick Co., B. Mifflin, Atlanta, Ga.
Hydraulic Press Brick Co., St. Louis, Mo.
Kingsport Brick Corp., Johnson City, Tenn.
Scott Brick Co., Alex. A., Knoxville, Tenn.
Standard Brick Co., Macon, Ga.

Brick. (Enameled.)
Am. Enameled Brick & Tile Co., New York, N. Y.

Brick. (Fire.)
Brookhaven Pressed Brick & Mfg. Co., Brookhaven, Miss.
Killian Fireproofing & Brick Works, Killian, S. C.
Louisville Fire Brick Works, Highland Park, Ky.
Mexico Brick & Fire Clay Co., Mexico, Mo.
Pomona Terra-Cotta Co., Pomona, N. C.
Standard Brick Co., Macon, Ga.
Stevens' Sons Co., H., Macon, Ga.
Union Mining Co., Mt. Savage, Md.

Brick. (Paving.)
Carlyle Paving Brick Co., Portsmouth, O.
Copeland-Inglis Shale Brick Co., Birmingham, Ala.
Dunn Wire-Cut-Lug Brick Co., Conneaut, Ohio
Southern Clay Mfg. Co., Chattanooga, Tenn.
Standard Brick Co., Macon, Ga.

Brick. and Clayworking Machinery and Supplies.
Chase Fdry. & Mfg. Co., Columbus, O.
Fernholtz Brick Machinery Co., St. Louis, Mo.
Freese & Co., E. M., Galion, O.
Steele & Sons, J. C., Statesville, N. C.

Bridges. (Concrete.)
Cunningham Construction Co., Shreveport, La.
Luten, Daniel B., Indianapolis, Ind.
Requarth Co., C. W., Charlotte, N. C.
Turner, C. A. P., Minneapolis, Minn.

Bridges. (Rolling Lift.)
Scherzer Rolling Lift Bridge Co. Chicago, Ill.

Bridges. (Steel.)
American Bridge Co. of New York, N. Y.
Belmont Iron Works, Philadelphia, Pa.
Case Crane & Engineering Co., Columbus Ohio.
Champion Bridge Co., Wilmington, Ohio.
Chicago Bridge & Iron Works, Chicago, Ill.
Cunningham Construction Co., Shreveport, La.
East St. Louis Bridge Co., East St. Louis, Ill.
Richmond Structural Steel Co., Richmond, Va.
Scherzer Rolling Lift Bridge Co., Chicago, Ill.
Vincennes Bridge Co., Vincennes, Ind.
Virginia Bridge & Iron Co., Roanoke, Va.

Bridge and Structural Iron Paints.
Chattanooga Paint Co., Chattanooga, Tenn.

Bridge Builders. (Timber.)
Murray & Co. Inc., W. D., Norfolk, Va

Brimstone.
Union Sulphur Co., New York, N. Y.

Buckets. (Clam Shell.)
Hayward Company, New York, N.Y.
Williams Company, G. H., Cleveland, Ohio.

Buckets. (Dredging, Excavating, Sewer, etc.)
Hayward Co., New York, N. Y.
Mead-Morrison Mfg. Co., East Boston, Mass.
Monighan Mch. Co., Chicago, Ill.
Williams Co., The G. H., Cleveland, O.

Buckets. (Grab.)
Hunt Co., Inc., C. W., West New Brighton, N. Y.

Buckets. (Orange Peel.)
Hayward Co., The, New York, N. Y

Buckets. (Ore Handling.)
Caldwell & Son Co., H. W., Chicago, Ill.
Hayward Co., New York, N. Y.
Link-Belt Co., Philadelphia, Pa.
Williams Co., The G. H., Cleveland, O.

Buhr Stones.
Starr Co., B. F., Baltimore, Md.

Builders and Contractors.
Interstate Const. Co., Louisville, Ky.
Stone & Webster Eng. Corp., Boston, Mass.
Turner, C. A. P., Minneapolis, Minn.
White Companies, J. G., New York, N. Y.

Building Stone
Atlantic Stone Co., Atlanta, Ga.
Bedford Steam Stone Works, Bedford, Ind.

Building Supplies.
Chicago House Wrecking Co., Chicago, Ill.
Southern Building Material Co., Norfolk, Va.

Burners. (Oil.) [See Fuel Oil Equipments.]

Bushings. (Graphite, Bronze and Wood.)
Graphite Lubricating Co, Bound Brook, N. J.

Bushings. (Oilless.)
Graphite Lubricating Co., Bound Brook, N. J.
Metaline Co., Long Island City, N. Y.

Cables.
Broderick & Bascom Rope Co., St. Louis, Mo.
Roebling's Sons Co., John A., Trenton, N. J.

Cables and Wires. (Insulated.)
American Steel & Wire Co., Chicago, Ill.

Cableways. (Overhead Suspension.)
Ambursen Co. (Tramway Department, New York, N. Y.
Broderick & Bascom Rope Co., St. Louis, Mo.
Flory Mfg. Co., S., Bangor, Pa.
Lidgerwood Mfg. Co., New York, N. Y.
Roebling's Sons Co., John A., Trenton, N. J.

Can and Box Making Machinery. (Tin.)
Ams Machine Co., Max, Mt. Vernon, N. Y.
Bliss Co., E. W., Brooklyn, N. Y.

Canning Machinery and Supplies.
Robins & Co., A. E., Baltimore, Md.
Sprague Canning Machinery Co., Chicago, Ill.

Carborundum Paper and Cloth.
Carborundum Co., Niagara Falls, N. Y

Cars. (Dump, Industrial, Logging and Mine.)
Austin Mfg. Co., Chicago, Ill.
Chase Fdry. & Mfg. Co., Columbus, O
Curd, Geo. B., Cincinnati, Ohio
Electric Wheel Co., (Mfrs.), Quincy, Ill.
Georgia Car & Locomotive Co., Atlanta, Ga.
Hunt Co., C. W., Inc., West New Brighton, N. Y
Kilbourne & Jacobs Mfg. Co., Columbus, Ohio.
Oliver Mfg. Co., Wm. J., Knoxville, Tenn.
Western Wheeled Scraper Co., Aurora, Ill.

Cars. (Passenger and Freight.) [See Railroad Equipment and Supplies.]

Car Unloaders.
Bonney Supply Co., Rochester, N. Y.

Car Wheels, Axles and Trucks.
Carnegie Steel Co., Pittsburgh, Pa.
Oliver Mfg. Co., Wm. J., Knoxville, Tenn.

Cast Iron Pipe. (See Pipe.) [Cast Iron.]

Castings. (Aluminum.)
Aluminum Company of America, Pittsburgh, Pa.

Castings. (Brass and Bronze.)
McKenna Bros. Brass Co., Pittsburgh, Pa.
Triumph Electric Co., Cincinnati, O

Castings. (Gray Iron.)
Columbian Iron Works, Chattanooga, Tenn.
Georgia Car & Locomotive Co., Atlanta, Ga.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Hull's Sons, D. F., Hagerstown, Md.
Phoenix Iron Works Co., Meadville, Pa.
U. S. Cast Iron Pipe & Fdry. Co., Burlington, N. J
Valk & Murdoch Iron Works, Charleston, S. C.
Westbrook Elevator Co., Danville, Va.

Castings. (Malleable Iron and Steel.)
Columbus Malleable Iron Co., Columbus, Ohio.
General Malleable Co., Warren, O.
Missouri Malleable Iron Co., East St. Louis, Ill.

Castings. (Steel.)
Crucible Steel Castings Co., Lansdowne, Pa
Hoffman & Co., Inc., R. C., Baltimore, Md.
Phoenix Iron Works Co., Meadeville, Pa.
Riverside Steel Casting Co., Newark, N. J.

Ceilings (Metal.)
Edwards Manufacturing Co., Cincinnati, O.
Keighley Metal Ceil. & Mfg. Co. S., Pittsburgh, Pa.

Cement.
Clinchfield Portland Cem. Corp., Kingsport, Tenn
Dixie Portland Cement Co., Chattanooga, Tenn.
Hartranft Cement Co., Wm. G., Philadelphia, Pa.
Kirkpatrick Sand & Cement Co., Birmingham, Ala.
Kosmos Portland Cement Co., Inc., Louisville, Ky
Lehigh Portland Cement Co., Allentown, Pa.
Southern States Portland Cem. Co., Rockmart, Ga
Standard Portland Cement Co., Leeds, Ala.

Cement Machinery.
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Power & Mining Machinery Co., Cudahy, Wis.
Raymond Bros. Impact Pulv. Co., Chicago, Ill.

Chains (Dredge, Quarry, Steam Shovel.)
Weimer Chain & Iron Co., Lebanon, Pa.

Chemists. (Analytical and Consulting.)
Davis, Geo. C., Philadelphia, Pa.
Froehling & Robertson, Richmond, Va.
Hunt & Co., Robt. W., Chicago, Ill.
Little Inc., A. D., Boston, Mass.
Meade, Richard K., Baltimore, Md.
Pittsburgh Testing Laboratory, Pittsburgh, Pa.
Wiley & Co., Baltimore, Md.

Choride Accumulator.
Electric Storage Battery Co., The, Philadelphia, Pa

Chucks.
Morse Twist Drill & Mch. Co., New Bedford, Mass

Cities and Towns. (Commercial and Industrial Opportunities.) [See Industrial, Agricultural and Commercial Opportunities.]

Clamps. (For Concrete Forms.)
Sterling Wheelbarrow Co., Milwaukee, Wis.

Clayworking Machinery. [See Brick and Clayworking Mchy. and Supplies.]

Cleansing Compound. (Floors, Etc.)
India Alkali Works, Boston, Mass.

Clocks (Watchman.)
Watchman's Clock & Supply Co., New York, N. Y

Clutches. (Friction.)
Affiliated Manufacturers Co., Milwaukee, Wis.
Medart Patent Pulley Co., St. Louis, Mo
Moore & White Co., The Philadelphia, Pa

Coal.
Clinchfield Coal Corp. Dante, Va.
Clinchfield Fuel Co., Spartanburg, S. C.
Consolidation Coal Co., Inc., New York, N. Y.
Tennessee Coal, Iron & R. R. Co., B'mgh'm, Ala

Coal Cutters.
Jeffrey Mfg. Co., Columbus, O.

Coal Handling Machinery.
Bartlett & Snow Co., C. O., Cleveland, O.
Guarantee Construction Co., New York, N. Y
Hayward Co., New York, N. Y.
Hunt Co., C. W., Inc., West New Brighton, N. Y
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Philadelphia, Pa.
Weller Mfg. Co., Chicago, Ill.

Coal Tar and By-Products.
Barrett Mfg. Co., Philadelphia, Pa.

Coal Tipples.
American Bridge Co. of New York, N. Y.

Coke.
Tennessee Coal, Iron & R. R. Co., B'mgh'm, Ala

Cold Store Doors.
Brecht Co., The, St. Louis Mo.

Collections.
Craig Mercantile Agency, Houston, Texas.

Colleges and Schools.
Converse College, Spartanburg, S. C.
Rensselaer Polytechnic Institute, Troy, N. Y.

Colleges. (Technical.)
Rensselaer Polytechnic Institute, Troy, N. Y.

Columns. (Porch, Interior, Pergola.)
Nickerson Mfg. Co. Knoxville, Tenn.

Commission Merchants. (Export & Import.)
Duckett & Co., A. W., New York, N. Y.

Concrete Chutes.
C. H. & E. Mfg. Co., Inc., Milwaukee, Wis.

Concrete Construction. (Reinforced.)
Corrugated Bar Co., Buffalo, N. Y.
Cunningham Construction Co., Shreveport, La
Elford, E., Columbus, O.
Foster & Creighton Co., Nashville, Tenn
Guarantee Construction Co., New York, N. Y
Jeffrey Mfg. Co., Columbus, O.
Requarth Co., C. W., Charlotte, N. C.
Turner, C. A. P., Minneapolis, Minn.

Concrete Curb Protector. (Steel.)
Steel Protected Concrete Co., Philadelphia, Pa.

Concrete Mixers. [See Mixers. (Concrete)]

Concrete Reinforcing Bars.
Bourne-Fuller Co., The, Cleveland, O
Carnegie Steel Co., Pittsburg, Pa.
Corrugated Bar Co., Buffalo, N. Y.
Dietrich Brothers, Baltimore, Md.
Gulf States Steel Co., Birmingham, Ala.
Hoffman & Co. R. C., Baltimore, Md.
Jones & Laughlin Steel Co Pittsburgh, Pa.
Lackawanna Steel Co. Lackawanna, N. Y.
Laclede Steel Co., St. Louis, Mo.
Pardee Works, C., Perth Amboy, N. J
Republic Iron & Steel Co., Youngstown, O.
Sweets Steel Co., Williamsport, Pa.

Concrete Reinforcing Wire and Wire Fabric
American Steel & Wire Co., Chicago, Ill.
Roebling's Sons Co., John A., Trenton, N. J.

Condensers.
Alberger Pump & Condenser Co., New York, N. Y
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Gresson-Morris Co., Philadelphia, Pa.
Dean Bros., Steam Pump Wks., Indianpolis, Ind.
Westinghouse Machine Co., Pittsburgh, Pa.
York Mfg. Co., York, Pa.

Conductor Pipe.
Edwards Mfg. Co., Cincinnati, O.

Conduits. (Electrical.)
National Metal Molding Co., Pittsburgh, Pa.

Conduits. (Interior.)
National Metal Molding Co., Pittsburgh, Pa.

Conduits. (Steel.)
National Metal Molding Co., Pittsburgh, Pa.

Conduit Fittings.
National Metal Molding Co, Pittsburgh, Pa

CLASSIFIED INDEX OF ADVERTISEMENTS.

Contractors (Drainage)
Globe Dredging Co., Savannah, Ga.
Thompson & Moseley, Inc., Greensboro, N. C.

Contractors. (Dredging)
Globe Dredging Co., Savannah, Ga.

Contractors. (Hydro-Electric Developments.)
Requarth Co., C. W., Charlotte, N. C.

Contractors. (Reinforced Concrete.)
Hayward & Ashby, Rocky Mount, N. C
Requart Co. C. W., Charlotte, N. C.

Contractors. (Water Supply.)
Layne & Bowler Co., Houston, Tex.

Contractor's Machinery and Supplies. [See also Hoisting Machinery.]
American Clay Machinery Co., The, Bucyrus, Ohio.
Austin Mfg. Co., Chicago, Ill.
Byers Mach. Co., The John F., Ravenna, O
Curd, Geo. B., Cincinnati, O.
Flory Mfg. Co., S., Bangor, Pa.
Marine Metal & Supply Co., New York, N. Y
Milburn Co., Alex. N., Baltimore, Md.
Monighan Mch. Co., Chicago, Ill.
National Hoisting Engine Co., Harrison, N. J
Oliver Mfg. Co., Wm. J., Knoxville, Tenn.
Sherwood, E. C., New York, N. Y.
Sterling Machinery Co., New York, N. Y
Thaw & Williams, Cincinnati, Ohio.

Conveying and Elevating Machinery.
Ambursen Co., (Tramway Department), New York, N. Y.
Bartlett & Snow Co., C. O., Cleveland, O.
Caldwell & Son Co., H. W., Chicago, Ill.
Flory Mfg. Co., S., Bangor, Pa.
Guarantee Construction Co., New York, N. Y
Hunt Co., C. W., Inc., West New Brighton, N. Y.
Jeffrey Mfg. Co., Columbus, O.
Lidgerwood Mfg. Co., New York, N. Y.
Link-Belt Co., Philadelphia, Pa.
Main Belting Co., Philadelphia, Pa.
Mathews Gravity Carrier Co., Ellwood City, Pa.
McLanahan-Stone Mach. Co. Hollidaysburg, Pa.
Weller Mfg. Co., Chicago, Ill.

Cooperage Stock and Box Shook Machinery.
Gerlach Co., Peter, Cleveland, O.

Cordage.
Broderick & Bascom Rope Co., St. Louis, Mo.
Columbian Rope Co., Auburn, N. Y.
Waterbury Co., New York, N. Y.

Core Drilling.
Ameling Prospecting Co., H. R. St. Louis, Mo.
Sprague & Henwood, Inc., Scranton, Pa

Corn-Mill Machinery.
Raymond Bros. Impact. Pulv. Co., Chicago, Ill
Starr Co., B. F., Baltimore, Md.
Wolf Co., Chambersburg, Pa.

Cotton Oil and Products.
American Cotton Oil Co., New York, N. Y

Cotton Yarns. (Commission Merchants.)
Paulson, Linkroum & Co., New York, N. Y.

Cotton-Gin Machinery.
Carver Cotton Gin Co., East Bridgewater, Mass.
Continental Gin Co., Birmingham, Ala.
Murray Co., The, Atlanta, Ga.

Cotton-Mill Machinery.
Crompton & Knowles Loom Works, Worcester, Mass.
Draper Co., Hopedale, Mass.
Mason Machine Works., Taunton, Mass.
Saco-Lowell Shop, Boston, Mass.
Whitinsville Spin'g Ring Co., Whitinsville, Mass

Cotton-Mill Supplies.
American Supply Co., Providence, R. I.
Crompton & Knowles Loom Works, Worcester, Mass.
Whitinsville Spin'g Ring Co., Whitinsville, Mass

Cottonseed-Oil Machinery.
Buckeye Iron & Brass Works, Dayton, O
Burrows Engineering Co., Atlanta, Ga.
Cardwell Machine Co., Richmond, Va.
Carver Cotton Gin Co., East Bridgewater, Mass.
Continental Gin Co., Birmingham, Ala.
French Oil Mill Machinery Co., Piqua, O.
Murray Co., The, Atlanta, Ga.
Piatt Iron Works Co., Dayton, Ohio.
Raymond Bros. Impact Pulr. Co., Chicago, Ill.

Couplings.
American Spiral Pipe Works, Chicago, Ill.
Golden's Foundry & Machine Co., Columbus, Ga.
Wood's Sons Co., T. B., Chambersburg, Pa.

Couplings. (Car.)
Weimer Chain & Iron Co., Lebanon, Pa.

Couplings. (Hose, Air, Gas, Steam and Water.)
National Tube Co., Pittsburgh, Pa.

Coverings. (Pipe, Boiler, etc.)
Johns-Manville Co., H. W., New York, N. Y.
Southern Asbestos Mfg. Co., Inc., Richmond, Va

Cranes. (Locomotive.)
Ohio Locomotive Crane Co., Bucyrus, O.

Cranes. (Traveling, Hand, Power, Hydraulic.)
Case Crane & Engineering Co., Columbus, Ohio.
Speidel, J. G., Reading, Pa.

Crayons.
Georgia Talc Co., Asheville, N. C.
Lowell Crayon Co., Lowell, Mass

Creosoting Equipment.
Casey-Hedges Co., Chattanooga, Tenn.
Struthers-Wells Co., Warren, Pa.
Walsh & Weidner Boiler Co., Chattanooga, Tenn.

Creosoting Works.
American Creosote Works, New Orleans, La.
Internat'l Creosot'g & Cons. Co., Galveston, Tex.
National Lumber & Creos. Co., Texarkana, Ark.
Southern Creosoting Co., Ltd., Slidell, La.
Southern Paving Const. Co., Chattanooga, Tenn.
Southern Wood Preserving Co., Atlanta, Ga.

Crossarms and Pins.
Western Electric Co., New York, N. Y.

Crossarms. (Creosoted.)
American Creosote Wks., New Orleans, La.
Internat'l Creosoting & Cons. Co., Galveston, Tex.
National Lumber & Creosoting Co., Texarkana, Ark.
Southern Creosoting Co., Ltd., Slidell, La.
Southern Paving Const. Co., Chattanooga, Tenn
Southern Wood Preserving Co., Atlanta, Ga.

Crossings. [See Railroad Frogs and Switches.]

Crosstie Machine.
Standard Portable Saw Mill Co., New Orleans, La

Crossties. (Creosoted.)
American Creosote Works, New Orleans, La.
Internat'l Creosot'g & Cons. Co., Galveston, Tex.
National Lumber & Creos. Co., Texarkana, Ark.
Southern Creosoting Co., Ltd., Slidell, La.
Southern Paving Const. Co., Chattanooga, Tenn.
Southern Wood Preserving Co., Atlanta, Ga.

Crossties. (Steel.)
Carnegie Steel Co., Pittsburgh, Pa.

Crushed Stone. (Road Concrete and Ballast.)
American Ballast Co., Knoxville, Tenn
Atlantic Stone Co., Atlanta, Ga.
Bald Mountain Quarry, Newson, N. C.
Chickamauga Quarry & Construction Co., Chattanooga, Tenn.
Kirkpatrick Sand & Cement Co., Birmingham, Ala
Weston Brooker Quarry Co., Columbia, S. C.

Crushers. (Corn and Cob.)
Gruendler Pat. Crusher & Pulv. Co., St. Louis, Mo.
Jeffrey Mfg. Co., Columbus, O.
Raymond Bros. Impact Pulv. Co., Chicago, Ill.

Crushers. (Rock.)
Austin Mfg. Co. Chicago, Ill.
Buchanan Co., Inc., C. G., New York, N. Y
Chalmers & Williams, Chicago Heights, Ill.
Power & Mining Machinery Co., Cudahy, Wis.
Raymond Bros. Impact Pulv. Co., Chicago, Ill.
Universal Road Mchy. Co., Kingston, N. Y.
Western Wheeled Scraper Co., Aurora, Ill.

Crushing and Pulverizing Machinery.
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Austin Mfg Co. Chicago, Ill.
Bartlett & Snow Co., C. O., Cleveland, O.
Buchanan Co., Inc., C. G., New York, N. Y.
Chalmers & Williams, Chicago Heights, Ill.
Gruendler Pat. Crusher & Pulv. Co., St. Louis, Mo.
Jeffrey Mfg. Co., Columbus, O.
McLahanan-Stone Mach. Co., Hollidaysburg, Pa
Raymond Bros. Impact Pulv. Co., Chicago, Ill.
Stedman's Foundry & Machine Works, Aurora, Ind
Western Wheeled Scraper Co., Aurora, Ill.

Culvert Pipe. (Cast Iron.)
American Cast Iron Pipe Co. Birmingham, Ala
American Pipe & Const. Co., Philadelphia, Pa.
Clow & Sons, James B., Chicago, Ill.
Donaldson Iron Co., Emaus, Pa.
Glamorgan Pipe & Foundry Co., Lynchburg, Va
Lynchburg Foundry Co., Lynchburg, Va.
Massillon Iron & Steel Co., Massillon, Ohio
U. S. Cast Iron Pipe & Fdry. Co., Burlington, N. J
Wood & Co., R. D., Philadelphia, Pa.

Culverts. (Corrugated Metal.)
American Sheet & Tin Plate Co., Pittsburgh, Pa.
Armco Culvert Publicity Bureau, Cincinnati, O.
Atlas Metal Works, Dallas Tex.
Canton Culvert and Silo Co., The, Canton, O.
Dixie Culvert & Metal Co., Atlanta, Ga.
Fouts Co., C. C., Middletown, O.
Galion Iron Works & Mfg. Co., The, Galion, Ohio.
Lone Star Culvert Co., Houston, Tex.
National Corrugated Culvert Mfg. Co., Warren, Pa.
Newport Culvert Co., Inc., Newport, Ky.
Salisbury Metal Culvert Co., Salisbury, N. C.
Tennessee Metal Culvert Co., Nashville, Tenn.
Virginia Metal Culvert Co., Inc., Roanoke, Va.

Culverts. (Vitrified Pipe.)
Southern Sewer Pipe Co., Birmingham, Ala.
Stevens Sons Co., H., Macon, Ga.

Curb Protector. (Steel.)
Steel Protected Concrete Co., Philadelphia, Pa.

Cutter Grinders.
Vitrified Wheel Co., Westfield, Mass.

Cutting. (Oxy-Acetylene Process.)
Prest-O-Lite Co., Inc., The, Indianapolis, Ind.

Cuts. (Half Tone, Line, Etc.)
Alpha Photo Engraving Co., Balto. Md.
Baltimore-Maryland Engraving Co., Baltimore, Md.

Derricks and Derrick Fittings.
Byers Mach. Co. The John F., Ravenna, O.
Hayward Co., The, New York, N. Y.
Monighan Machine Co., Chicago, Ill.

Designers and Illustrators. (Printed Matter.)
Alpha Photo Engraving Co., Baltimore, Md.
Baltimore-Maryland Engraving Co., Baltimore, Md.

Diamond Core Drilling.
Ameling Prospecting Co., H. R., St. Louis, Mo.
Sprague & Henwood, Inc., Scranton, Pa.

Disposal Plants. (Garbage Incinerators.)
Stacy-Bates Co., Minneapolis, Minn.

Ditching Machinery.
American Steel Dredge Co., Fort Wayne, Ind.
Bay City Dredge Works., Bay City, Mich.
Economy Excavator Co., Iowa Falls, Iowa.
Fairbanks Steam Shovel Co., Marion, O.
Hayward Co., The, New York, N. Y.
Marion Steam Shovel Co., Marion, O.
Monighan Machine Co. Chicago, Ill.
Thew Automatic Shovel Co., Lorain, Ohio.
Williams Co., The, G. H., Cleveland, O

Doors. (Steel Rolling.)
Kinnear Mfg. Co., Columbus, O.
Van Harlingen, J. M., Atlanta, Ga

Doors. (Tin Clad.)
Victor Mfg. Co., Newburyport, Mass.

Double Seamers.
Ams Machine Co., Max, Mt. Vernon, N. Y.

Draftsman.
Childrey Co., Richmond, Va.

Draftsman's Supplies.
Weber & Co., F., Philadelphia, Pa.

Dredging Contractors. [See Contractors (Dredging.)]

Dredge Chains.
Weimer Chain & Iron Co., Lebanon, Pa.

Dredges. [See Excavating Machinery.]

Drills. (Pneumatic.) [See also Drills Rock and Mining.]

Drills. (Prospecting.)
Keystone Steam Well Mach. Co., Beaver Falls, Pa.

Drills. (Rock and Mining.)
Jeffrey Mfg. Co., Columbus, O.
Sullivan Mchry. Co., Chicago, Ill.

Drills. (Twist.)
McKenna Bros. Brass Co., Pittsburgh, Pa.
Morse Twist Drill & Mch. Co., New Bedford, Mass.

Drive Well Points and Well Supplies.
National Tube Co., Pittsburgh, Pa.

Drop Forgings.
American Spiral Pipe Works, Chicago, Ill.

Drop Forging Machinery.
Bliss Co. E. W., Brooklyn, N. Y.
Erie Foundry Co., Erie, Pa.

Dryers. (Sand.) [See Sand Dryers.]

Dry Docks. (Builders of)
American Bridge Co. of New York, N. Y

Drying Machinery.
American Process Co., New York, N. Y.
Bailey-Lebby Co., The, Charleston, S. C.
Buffalo Forge Co., Buffalo, N. Y.
Coatesville, Boiler Works, Coatesville, Pa.
Cummer & Son Co., F. D., The, Cleveland, Ohio
Hersey Manufacturing Co., South Boston, Mass.
Ruggles-Coles Engineering Co., New York, N. Y
Sturtevant Co., B. F., Hyde Park, Boston, Mass.

Dry Kilns.
Buffalo Forge Co., Buffalo, N. Y.

Dry Kiln Equipment.
Moore Dry Kiln Co., L., Jacksonville, Fla

Dumbwaiters. (Hand Power.)
McKenna Bros. Brass Co., Pittsburgh, Pa.
Speidel, J. G., Reading, Pa.

Dust-Collecting System
Buffalo Forge Co., Buffalo, N. Y
King Co., F. E., Norfolk, Va
South Atlantic Blow Pipe & Sheet Metal Co Savannah, Ga

Dynamite. (Industrial and Agricultural.)
Du Pont Powder Co., Wilmington, Del.
Keystone Nat'l Powder Co., Emporium, Pa

Dynamos and Motors.
Assets Purchasing Co., Wheeling, W. Va.
General Electric Co., Schenectady, N. Y.
Pan Electric Mfg. Co., St. Louis, Mo.
Terry Steam Turbine Co., Hartford, Conn
Triumph Electric Co., Cincinnati, O.
Western Electric Co., New York, N. Y

Eaves. (Trough.)
Edwards Mfg. Co., Cincinnati, O.

Ejectors. (Sewage.)
Lunkenheimer Co., The, Cincinnati, O.
Pacific Flush Tank Co., New York, N. Y.

Electric Machinery. (Dynamos, Generators, Motors, etc.)
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Elevator & Mch. Co., Louisville, Ky
Comstock Electric Co., High Point, N. C.
Fairbanks-Morse & Co., Atlanta, Ga.
General Electric Co., Schenectady, N. Y.
Moore & Co., Edgar M. Pittsburg, Pa.
Pan Electric Mfg. Co., St. Louis, Mo.
Piedmont Electric Co., Ashevill, N. C.
Scheinert Co., R., Philadelphia, Pa.
Schroeder Electric Co., Evansville, Ind.
Sturtevant Co., B. F., Hyde Park Boston, Mass
Triumph Electric Co., Cincinnati, O
Wilson Mchy. Co., St. Louis, Mo

Electrical Contractors, Instruments and Supplies.
Comstock Electric Co., High Point, N. C.
Economy Fuse & Mfg. Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Levy-Morton Co., Columbus, Ga.
Piedmont Electric Co., Asheville, N. C
Walker Electrical & Plumbing Co., Rome, Ga.

Electric Light Plants. (Portable.)
Schroeder Electric Co., Evansville, Ind.

Electro-Magnet. [See Magnet Electro.]

Elevating, Conveying and Power Tranmission Machinery. [See also Conveying and Elevating Machinery and Power Transmission Mchy.]

Elevator

ELECTRIC.
American Electric Machine & Elevator Co., St. Louis, Mo
Curren Elevator Co., James H., Cincinnati, Ohio.
Grote Mfg. Co., F., Evansville, Ind.
K. C. Elevator Mfg. Co., Kansas City, Mo.
Moffatt Machinery Mfg. Co., Charlotte, N. C.
Ohio Elevator & Machine Co., Columbus, Ohio.
Otis Elevator Co., New York, N. Y.
Speidel, J. G., Reading, Pa.
Warsaw Elevator Co., Baltimore, Md.
Westbrook Elevator Co., Danville, Va.

HAND AND BELT POWER.
American Electric Machine & Elevator Co., St. Louis, Mo.
Curren Elevator Co., James H., Cincinnati, O.
K. C. Elevator Mfg. Co., Kansas City, Mo.
Moffatt Machinery Mfg. Co., Charlotte, N. C.
Ohio Elevator & Machine Co., Columbus, O.
Otis Elevator Co., New York, N. Y.
Speidel, J. G., Reading, Pa.
Westbrook Elevator Co., Danville, Va.

HYDRAULIC.
American Electric Machine & Elevator Co., St. Louis, Mo.
Curren Elevator Co., James H., Cincinnati, O
K. C. Elevator Mfg. Co., Kansas City, Mo.
Moffatt Machinery Mfg. Co., Charlotte, N. C.
Ohio Elevator & Machine Co., Columbus, O.
Otis Elevator Co., New York, N. Y.
Westbrook Elevator Co., Danville, Va.

STEAM HYDRAULIC
Ridgway & Son Co., The, Coatesville, Pa.

Elevators. (Automatic.)
Mathews Gravity Carrier Co., Ellwood City, Pa.

Elevators. (Portable for Warehouses, etc.)
Economy Engineering Co., Chicago, Ill.

Elevator Bolts.
Upson Nut Co., The, Cleveland, O.

Elevator Buckets.
Caldwell & Son Co., H. W., Chicago, Ill.
Hendrick Mfg. Co., Carbondale, Pa.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Philadelphia, Pa.

Elevator Enclosures and Cabs.
Bolles Iron & Wire Works, J. E., Detroit, Mich.
Dow Wire & Iron Works, Louisville, Ky.
Dufur & Co., Baltimore, Md.
Dufur, Baggot & Co., Baltimore, Md.
Meyers Mfg. Co., The Fred J., Hamilton, O.
Ohio Elevator & Machine Co., The, Columbus, O.
Otis Elevator Co., New York, N. Y.

Elevator Rope. [See Wire Rope.]

Elevator Safety Gates.
American Elec. Mch. & Elevator Co., St. Louis, Mo
Richmond Safety Gate Co., Richmond, Ind.

Emery Wheels. [See Grinding Wheels.]

Engineers.

APPRAISAL.
Atlantic Engineering Co., Savannah, Ga.
Day & Zimmerman, Philadelphia, Pa.
Ferree Co., The H. G., Memphis, Tenn.
Meade, Richard K., Baltimore, Md
Weller, Francis R., Washington, D. C.

BLAST FURNACES.
Smythe Co., The S. R., Pittsburgh Pa

BRIDGE.
Atlantic Engineering Co., Savannah, Ga
Greiner & Whitman, Baltimore, Md.
Grimmer & Toussaint, Tampa, Fla.
Martin Co. A. J., Portsmouth, Ohio.

CHEMICAL.
Crosby, Walter W., Baltimore, Md.
Institute of Industrial Research, Washington, D. C
Kimball, Herbert S., Boston, Mass.
Little, Inc., A. D., Boston, Mass.
Meade, Richard K., Baltimore, Md
Pittsburgh Testing Laboratory, Pittsburgh, Pa

CIVIL
Arnold Co., The, Chicago, Ill.
Brown & Clarkson, Washington, D. C.
Feree Co., H. G., Memphis, Tenn.
Grimmer & Toussaint, Tampa, Fla.
Hayward & Ashby, Rocky Mount, N. C.
Hogue Engineering Ass'n., Charleston, W. Va.
Knowles, Morris, Pittsburgh, Pa
Lewis, Fred. H., Birmingham, Ala.
Mole, H. E., New York, N. Y
Moore & Thomas, Vicksburg, Miss.
Pain & Young, Tampa, Fla.
Renshaw & Breece, Huntington, W. Va.
Rucker, B. Parks, Chattanooga, Tenn
Shand Engineering Co., Columbia, S. C
Stevens, Harry, Washington, D. C.
Thompson & Moseley, Inc., Greensboro, N. C.
Waldo, W., Houston, Tex.
Walker Engineering Corp., Tampa, Fla
White Companies, J. G., New York, N. Y

DAMS
Grimmer & Toussaint, Tampa, Fla.
Main, Chas. T., Boston Mass.
Martin Co., A. J., Portsmouth, Ohio.
Quick, Alfred M., Baltimore, Md.
Requarth Co., C. W., Charlotte, N. C.
Spiker, William C., Atlanta, Ga.
Weller, Francis R., Washington, D. C.
White Companies, J. G., New York, N. Y.

DOCKS.
Greiner & Whitman, Baltimore, Md

DRAINAGE AND IRRIGATION.
Atlantic Engineering Co., Savannah, Ga.
Brown & Clarkson, Washington, D. C
Dabney Engineering Co., Memphis, Tenn
Ford, Bacon & Davis, New York, N. Y.
Knowles, Morris, Pittsburgh, Pa.
McCrady Bros. & Cheves, Inc., Charleston, S. C.
Thompson & Moseley, Inc., Greensboro, N. C
Walker Engineering Corp., Tampa, Fla

EFFICIENCY
Crosby, Walter W., Baltimore, Md.
Institute of Industrial Research, Washington, D. C
Little, Inc., A. D., Boston, Mass.
Quick, Alfred M., Baltimore, Md.

ELECTRICAL.
Arnold Co., The, Chicago, Ill.
Graves Engineering Co., Inc., New York, N. Y
Hogue Engineering Ass'n, Charleston, W. Va.
Keilholtz, P. O., Baltimore, Md.
Levy-Morton Co., Columbus, Ga.
Lewis, Fred. H., Birmingham, Ala.
Lide, Martin J., Birmingham, Ala
Mole H. E. New York, N.Y.
Rucker, B. Parks, Charlotte, N. C.
Stone & Webster Engr. Corp., Boston, Mass
Tucker & Laxton, Charlotte, N. C.
White, Gilbert C., Charlotte, N. C

ELECTRIC LIGHT AND POWER PLANTS.
Dabney Engineering Co., Memphis, Tenn
Ford, Bacon & Davis, New York, N. Y.
Graves Engineering Co., Inc., New York, N. Y
Keilholtz, P. O., Baltimore, Md.
Kelly, Thos. C., Cincinnati, Ohio.
Levy-Morton Co., Columbus, Ga.
Martin Co., A. J., Portsmouth, Ohio.
Scofield Engineering Co., Philadelphia, Pa.
Stone & Webster Engr. Corp., Boston, Mass
Weller, Francis R., Washington, D. C.
White Companies, J. G., New York, N. Y
White, Gilbert C., Charlotte, N. C.

GAS.
Ford, Bacon & Davis, New York, N. Y
Gas Engineering Co., Trenton, N. J.
Renshaw & Breece, Huntington, W. Va.

GEOLOGICAL.
Brown & Clarkson, Washington, D. C
Davis, Geo. C., Philadelphia, Pa.
Froehling & Robertson, Richmond, Va.
Grimsley, G. P., Martinsburg, W. Va.
Hogue Engineering Ass'n, Charleston, W. Va.
Institute of Industrial Research, Washington, D. C
Renshaw & Breece, Huntington, W. Va.

HYDRO-ELECTRIC
Atlantic Engineering Co., Savannah, Ga.
Brown & Clarkson, Washington, D. C
Graves Engineering Co., Inc., New York, N. Y.
Greiner & Whitman, Baltimore, Md.
Howe, Charles F., Macon, Ga.
Knowles, Morris, Pittsburgh, Pa.
Main, Chas. T., Boston, Mass.
Quick, Alfred M., Baltimore, Md.
Requarth Co., C. W., Charlotte, N. C.
Rucker, B. Parks, Charlotte, N. C.
Scofield Engineering Co., Philadelphia, Pa
Sirrine, J. E., Greenville, S. C.
Spiker, William C., Atlanta, Ga.
Tucker & Laxton, Charlotte, N. C.
Weller, Francis R., Washington, D. C.
White Companies, J. G., New York, N. Y.

INDUSTRIAL PLANT.
Cunningham Construction Co., Shreveport, La.
Day & Zimmerman, Philadelphia, Pa.
Ferree Co., The H. G., Memphis, Tenn.
Gilman, Harry L., Boston, Mass.
Graves Engineering Co., Inc., New York, N. Y
Grimmer & Toussaint, Tampa, Fla.
Guarantee Construction Co., New York, N. Y.
Institute of Industrial Research, Washington, D. C
Kelly, Thos. C., Cincinnati, Ohio.
Kimball, Herbert S., Boston, Mass.
Lewis, Fred. H., Birmingham, Ala.
Little, Inc., A. D., Boston, Mass.
Main, Chas. T., Boston, Mass.
Meade, Richard K., Baltimore, Md.
Rucker, B. Parks, Charlotte, N. C.
Scofield Engineering Co., Philadelphia, Pa.
Shearer, C. E., Memphis, Tenn.
Stone & Webster Engr. Corp., Boston, Mass
Stevens, Harry, Washington, D. C.
White Companies, J. G., New York, N. Y

INSPECTIONS AND TESTS
Crosby, Walter W., Baltimore, Md.
Froehling & Robertson, Richmond, Va.
Hill, Nicholas S., Jr., and S. F. Ferguson, New York, N. Y.
Hunt & Co., Robert W., Chicago, Ill.
Institute of Industrial Research, Washington, D. C
Meade, Richard K. Baltimore, Md.
Pittsburgh Testing Laboratory, Pittsburgh, Pa

LANDSCAPE.
Berckmans Co., P. J., Augusta, Ga.
Crosby, Walter W., Baltimore, Md.
Pain & Young, Tampa, Fla.

Engineers.

LIGHTING

Ford, Bacon & Davis, New York, N. Y.
McCrary & Co., J. B., Atlanta, Ga.
Rucker, H. Parks, Charlotte, N. C.

MECHANICAL.

Arnold Co., The, Chicago, Ill.
Graves Engineering Co., Inc., New York, N. Y.
Kelly, Thos. C., Cincinnati, Ohio.
Lewis, Fred. H., Birmingham, Ala.
Lide, Martin J., Birmingham, Ala.
McLundie, A. S., Chattanooga, Tenn.
Meade, Richard K., Baltimore, Md.
Stevens, Harry, Washington, D. C.
Tucker & Laxton, Charlotte, N. C.

MINING.

Brown & Clarkson, Washington, D. C.
Grimsley, G. P., Martinsburg, W. Va.
Hogue Engineering Ass'n, Charleston, W. Va.
Jones, E. M., Chattanooga, Tenn.
Renshaw & Breece, Huntington, W. Va.

MUNICIPAL.

Anderson & Christie, Charlotte, N. C.
Brown & Clarkson, Washington, D. C.
Crosby, Walter W., Baltimore, Md.
Dabney Engineering Co., Memphis, Tenn.
Elrod, Henry E., Dallas, Texas.
Graves Engineering Co., Inc., New York, N. Y.
Greiner & Whitman, Baltimore, Md.
Havely, H. B., Monroe, N. C.
Hayward & Ashby, Rocky Mount, N. C.
Hogue Engineering Ass'n, Charleston, W. Va.
Knowles, Morris, Pittsburgh, Pa.
McCrady Bros. & Cheves, Inc., Charleston, S. C.
McCrary Co., J. B., Atlanta, Ga.
Moore & Thomas, Vicksburg, Miss.
Pew, Arthur, Atlanta, Ga.
Shand Engineering Co., Columbia, S. C.
Walker Engineering Corp., Tampa, Fla.
White, Gilbert C., Charlotte, N. C.

PAVING AND ROAD.

Anderson & Christie, Charlotte, N. C.
Atlantic Engineering Co., Savannah, Ga.
Crosby, Walter W., Baltimore, Md.
Elrod, Henry E., Dallas, Texas.
Havely, H. B., Monroe, N. C.
Institute of Industrial Research, Washington, D. C.
McCrady Bros. & Cheves, Inc., Charleston, S. C.
Moore & Thomas, Vicksburg, Miss.
Shand Engineering Co., Columbia, S. C.
White, Gilbert C., Charlotte, N. C.

PUBLIC SERVICE PROPERTIES

Day & Zimmerman, Philadelphia, Pa.
Ferree Co., The H. G., Nemphis, Tenn.
Ford, Bacon & Davis, New York, N. Y.
Gilman, Harry L., Boston, Mass.
Graves Engineering Co., Inc., New York, N. Y.
Scofield Engineering Co., Philadelphia, Pa.
Stone & Webster Engr. Corp., Boston, Mass.
Weller, Francis R., Washington, D. C.
White Companies, J. G., New York, N. Y.

REINFORCED CONCRETE. (Bridges, Buildings, etc.)

Cunningham Construction Co., Shreveport, La.
Elford, E., Columbus, O.
Foster & Creighton Co., Nasnville, Tenn.
Guarantee Construction Co., New York, N. Y.
Hayward & Ashby, Rocky Mount, N. C.
Interstate Const. Co., Louisville, Ky.
Luten, Daniel B., Indianapolis, Ind.
Martin Co., A. J., Portsmouth, Ohio.
Requarth Co., C. W., Charlotte, N. C.
Savannah Eng. & Construction Co., Savannah, Ga.
Spiker, William C., Atlanta, Ga.
Tucker & Laxton, Charlotte, N. C.
White Companies, J. G., New York, N. Y.

RIVER AND HARBOR.

Gilman, Harry L., Boston, Mass.

SEWERAGE AND WATER-WORKS.

Anderson & Christie, Charlotte, N. C.
Brown & Clarkson, Washington, D. C.
Dabney Engineering Co., Memphis, Tenn.
Ford, Bacon & Davis, New York, N. Y.
Greiner & Whitman, Baltimore, Md.
Havely, H. B., Monroe, N. C.
Hill, Nicholas S., Jr., and S. F. Ferguson, New York, N. Y.
Knowles, Morris, Pittsburgh, Pa.
Mayer, J. H., Birmingham, Ala.
Miller, Hiram Allen, Boston, Mass.
Myers, E. W., Greensboro, N. C.
Pew, Arthur, Atlanta, Ga.
Quick, Alfred M., Baltimore, Md.
Stevens, Harry, Washington, D. C.
Walker Engineering Corp., Tampa, Fla.
White Companies, J. G., New York, N. Y.
White Gilbert C., Charlotte, N. C.

STEEL WORK AND ROLLING MILLS.

Smythe Co., The S. R., Pittsburgh, Pa.

STRUCTURAL STEEL.

Foster & Creighton Co., Nashville, Tenn.
Shearer, C. E., Memphis, Tenn.
Spiker, Wm. C., Atlanta, Ga.
Renshaw & Breece, Huntington, W. Va.

THEATRE CONSTRUCTION.

Gatlin, W. R. Hopkinsville, Ky.

Engines.

COMPRESSED AIR.

Dake Engine Co., Grand Haven, Mich.

GAS AND GASOLINE.

Affiliated Manufacturers Co., Milwaukee, Wis.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Bruce-Macbeth Engine Co., Cleveland, O.
Cooper Co., C. & G., Mt. Vernon, Ohio.
De La Vergne Machine Co., New York, N. Y.
Gas Engineering Co., Trenton, N. J.
Mietz, A., New York, N. Y.
Portsmouth Engine Co., Portsmouth, O.
Southern Engine & Boiler Works, Jackson, Tenn.
Van Duzen, Roys Co., The, Columbus, O.
Westinghouse Machine Co., The, Pittsburgh, Pa.

OIL.

Bolinders Co., New York, N. Y.
Chicago Pneumatic Tool Co., Chicago, Ill.
De La Vergne Machine Co., New York, N. Y.
Fairbanks-Morse & Co. Atlanta, Ga.
Meitz, A., New York, N. Y.
Moore & Sons Corp., Samuel L., Elizabeth, N. J.
Power Mfg. Co., Lima, Ohio.
Snow Steam Pump Plant, The, New York, N. Y.

STEAM.

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Ball Engine Co., Erie, Pa.
Buffalo Forge Co., Buffalo, N. Y.
Cameron & Barkley Co., Charleston, S. C.
Chicago House Wrecking Co., Chicago, Ill.
Cooper Co., C. & G., Mt. Vernon, O.
Dake Engine Co., Grand Haven, Mich.
Griffith & Wedge Co., The, Zanesville, O.
Houston, Stanwood & Gamble Co., Cincinnati, O.
Leffel & Co., James, Springfield, O.
Lombard Iron Works, Augusta, Ga.
Mecklenburg Iron Works, Charlotte, N. C.
Murray Iron Works Co., Burlington, Ia.
Phoenix Iron Works Co., Meadville, Pa.
Schofield Iron Works, Macon, Ga.
Sturtevant Co., B. F., Hyde Park, Boston, Mass.
Vilter Mfg. Co., Milwaukee, Wis.
Westinghouse Machine Co., Pittsburgh, Pa.

Envelopes.

Young & Selden Co., Baltimore, Md.

Excavating Machinery.

American Clay Machinery Co., The, Bucyrus, Ohio.
American Steel Dredge Co., Fort Wayne, Ind.
Bay City Dredge Works, Bay City, Mich.
Byers Mach. Co., The John F., Ravenna, O.
Economy Excavator Co., Iowa Falls, Iowa.
Fairbanks Steam Shovel Co., Marion, O.
Hayward Co., New York, N. Y.
Jeffrey Mfg. Co., Columbus, O.
Lidgerwood Mfg. Co., New York, N. Y.
Marion Steam Shovel Co., Marion, O.
Monighan Machine Co., Chicago, Ill.
Morris Machine Works, Baldwinsville, N. Y.
National Hoisting Engine Co., Harrison, N. J.
Thew Automatic Shovel Co., Lorain, Ohio.
Williams Co., The G. H., Cleveland, O.

Excavators. (Trench.)

Bay City Dredge Works, Bay City, Mich.
Economy Excavator Co., Iowa Falls, Iowa.
Fairbanks Steam Shovel Co., Marion, O.
Hayward Co., The, New York, N. Y.
Monighan Machine Co., Chicago, Ill.

Excelsior Machinery.

Kilne, Lewis T., Alpena, Mich.

Exhaust Heads.

American Spiral Pipe Works, Chicago, Ill.

Exhibits. (Machinery Builders' Equipment and Supplies.)

Builders' Exchange, Baltimore, Md.

Expansion Joints.

Badger & Sons Co., E. B., Boston, Mass.

Expansion Joints. (Street and Road.)

Philip Carey Co., The, Cincinnati, Ohio.

Expanded Metal. [See Lath.]

Explosives.

Du Pont Powder Co., Wilmington, Del.
Keystone Nat'l Powder Co., Emporium, Pa.

Export Agents. (South America.)

Lutz, Friedr W. Richmond, Va.

Factory Sites. (Town and Railroad.) [See Industrial, Agricultural and Commercial Opportunities.]

Fans. (Electric.)

General Electric Co., Schenectady, N. Y.

Fans. (Ventilating.) [See Blowers, Exhaust Fans.]

Fastener Driving Machine. (Corrugated Joint.)

Saranac Machine Co., Benton Harbor, Mich.

Feed-Water Heaters and Purifiers.

American Water Softener Co., Philadelphia, Pa.
Blake & Knowles Steam Pump Works, East Cambridge, Mass.
Murray Iron Works Co., Burlington, Ia.
National Pipe Bending Co., New Haven, Conn.
Scaife & Sons Co., Wm. B., Pittsburgh, Pa.
Stewart Heater Co., Buffalo, N. Y.

Feed-Water Heater and Purifier and Oil Separator Combined.

Blake & Knowles Steam Pump Works, East Cambridge, Mass.
Platt Iron Works Co., Dayton, Ohio.
Stewart Heater Co., Buffalo, N. Y.

Felt. (Building, Sheathing.)

Barrett Mfg. Co., Philadelphia, Pa.

Fencing. (Corrugated, Galvanized, Concrete.)

Amer. Sheet & Tin Plate Co., Pittsburgh, Pa.

Fencing. (Woven Wire Field.)

American Steel & Wire Co., Chicago, Ill.
Cyclone Fence Co., Waukegan, Ill.
Gulf States Steel Co., Birmingham, Ala.

Fencing, Entrance Gates. (Iron, Steel, Wire.)

American Steel & Wire Co., Chicago, Ill.
Bolles Iron & Wire Wks., J. E., Detroit, Mich.
Cincinnati Iron Fence Co., Cincinnati, Ohio.
Cyclone Fence Co., Waukegan, Ill.
Dow Wire & Iron Works, Louisville, Ky.
Dufur & Co., Baltimore, Md.
Eureka Supply Co., Chattanooga, Tenn.
New Jersey Wire Cloth Co., Trenton, N. J.
Ohio Elevator & Mach. Co., The, Columbus, O.

Fertilizer Machy. [See also Phosphate Mchy.]

Stedman's Foundry & Machine Works, Aurora, Ind.
Valk & Murdoch Iron Works, Charleston, S. C.

Files.

Barnett Co., G. & H., Philadelphia, Pa.
Nicholson File Co., Providence, R. I.

Filters. (Water, for Domestic and Industrial Purposes.

American Water Softener Co., Philadelphia, Pa.
International Filter Co., Chicago, Ill.
New York Con. Jewell Fil. Co., New York, N. Y.

Fire Clay. [See Brick, Fire.]

Fire Door Fixtures.

Richmond Safety Gate Co., Richmond, Ind.
Victor Mfg. Co., Newburyport, Mass.

Fire Extinguishers.

Badger & Sons Co., E. B., Boston, Mass.

Fire Escapes.

Bolles Iron & Wire Works, J. E., Detroit, Mich.
Chesapeake Iron Works, Baltimore, Md.
Eureka Supply Co., Chattanooga, Tenn.

Fire Hose

Eureka Fire Hose Mfg. Co., New York, N. Y.

Fire Places. (Brick and Tile.)

Hood Brick Co., B. Mifflin, Atlanta, Ga.

Fireproof Building Construction. [See Concrete Construction.]

Fireproof Building Material.

Bannon Pipe Co., P., Louisville, Ky.
Johns-Manville Co., H. W., New York, N. Y.

Fireproof Doors and Shutters.

Kinnear Mfg. Co., Columbus, O.
Richmond Safety Gate Co., Richmond, Ind.
Victor Mfg. Co., Newburyport, Mass.
Wagner's Sons Co., J. F., Louisville, Ky.
Wilson Corp., J. G., New York, N. Y.

Fireproof Windows. [See Window Frames and Sashes (Fireproof.)]

Fittings. (Wire Rope.)

Waterbury Co., New York, N. Y.

Fireproofing. (Brick and Tile.)

Hood Brick Co., B. Mifflin, Atlanta, Ga.

Flanges. (Iron and Steel.)

American Cast Iron Pipe Co., Birmingham, Ala.
American Pipe & Construction Co., Phila., Pa.
American Spiral Pipe Works, Chicago, Ill.
Dart Mfg. Co., E. M., Providence, R. I.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
National Tube Co., Pittsburgh, Pa.
U. S. Cast Iron Pipe & Fdry. Co., Burlington, N. J.
Wood & Co., R. D., Philadelphia, Pa.

Flooring. (Composition.)

Petro-Pulp Floor Co., Kansas City, Mo.

Flooring. (Creosoted Block.)

Republic Creosoting Co., Indianapolis, Ind.

Flooring. (Hardwood, Maple, Oak.)

Whiting, William S., Elizabethton, N. C.

Floor Surfacing Machines. (Automatic Ball Bearing, Electric.)

Wayvell Chappell & Co., Chicago, Ill.

Flour and Grist Mill Machinery and Supplies.

Caldwell & Sons Co., H. W., Chicago, Ill.
Salem Foundry & Machine Works, Salem, Va.
Starr Co., B. F., Baltimore, Md.
Wolf Co., Chambersburg, Pa.

Flue Lining.

Owensboro Sewer Pipe Co., Owensboro, Ky.
Southern Sewer Pipe Co., Birmingham, Ala.

Forges.

Buffalo Forge Co., Buffalo, N. Y.

Forgings.

Weimer Chain & Iron Co., Lebanon, Pa.

Foundations. (Waterproof.)

Requarth Co., C. W., Charlotte, N. C.

Foundry Equipment and Supplies.

Hill-Brunner Fdry. Supply Co., Cincinnati, O.
Newport Sand Bank Co., Inc., Newport, Ky.

Foundry Facings. (Talc and Soapstone.)

Georgia Talc Co., Asheville, N. C.
Hill-Brunner Fdry. Supply Co., Cincinnati, O.

Foundry and Machine Shops.

Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Goldens Foundry & Machine Wks., Columbus, Ga.
Grainger & Co., Inc., Louisville, Ky.
Lombard Iron Works, Augusta, Ga.
Titus, E. E., Petersburg, Va.
Valk & Murdoch Iron Works, Charleston, S. C.

Frogs. [See Railroad Frogs and Switches.]

Fuel Economizer.

Green Fuel Economizer Co., Matteawan, N. Y.
Sturtevant Co., B. F., Hyde Park, Boston, Mass.

Fuel Oil.

Gulf Refining Co., Pittsburg, Pa.
Texas Co., The, Houston, Tex.
U. S. Asphalt Refining Co., New York, N. Y.

Furnaces. (For Industrial Purposes.)

Smythe Co., The S. R., Pittsburgh, Pa.

Furniture. (Metal.)

The Van Dorn Iron Works Co., Cleveland, Ohio.

Fuses. (Electrical.)

Economy Fuse & Mfg. Co., Chicago, Ill.

Fuse Shells. (Renewable.)

Economy Fuse & Mfg. Co., Chicago, Ill.

Fuses, Bases and Fittings.

Johns-Manville Co., H. W., New York, N. Y.

Galvanized Steel and Iron.

American Sheet & Tin Plate Co., Pittsburgh, Pa.
La Belle Iron Works, Steubenville, O.
McCalla, Co., Harold, Philadelphia, Pa.
Whitaker-Glessner Co., Portsmouth Plant, Portsmouth, Ohio
Wood Iron & Steel Co., Alan, Philadelphia, Pa.
Youngstown Sheet & Tube Co., Youngstown, O.

Galvanizing Machinery. (Sheet.)

Erie Foundry Co., Erie, Pa.

Garage and House. (Portable.)

Dixie Culvert & Metal Co., Atlanta, Ga.
Steel Products Co., The, Savannah, Ga.

Garbage Disposal Plants.

Stacy-Bates Co., Minneapolis, Minn.

Gas Blowers. (Turbine.)

Terry Steam Turbine Co., Hartford, Conn.

Gas Engines. [See Engines, Gas.]

Gas Machines.

Kemp Mfg. Co., C. M., Baltimore, Md.
Milburn Co., Alex. N., Baltimore, Md.

Gas Plants.

Gas Engineering Co., Trenton, N. J.
Power & Mining Machinery Co., Cudahy, Wis.
Western Gas Construction Co., Ft. Wayne, Ind.

Gas Producers.

Smythe Co., The S. R., Pittsburgh, Pa.
Westinghouse Machine Co., Pittsburgh, Pa.
Wood & Co., R. D., Philadelphia, Pa.

Gasoline and Kerosene.

Gulf Refining Co., Pittsburg, Pa.
Texas Co., The, Houston, Tex.

Gas and Steam Fitters' Tools.

Saunders' Sons, D., Yonkers, N. Y.

Gears.

Caldwell & Son Co., H. W., Chicago, Ill.
Cresson-Morris Co., Philadelphia, Pa.
James Mfg. Co., D. O., Chicago, Ill.
Jeffrey Mfg. Co., Columbus, O.

Generating Sets.

Sturtevant Co., B. F., Hyde Park, Boston, Mass.
Triumph Electric Co., Cincinnati, O.

Geologists.

Davis, Geo. G., Phila., Pa.
Froehling & Robertson, Richmond, Va.
Grimsley, G. P., Martinsburg, W. Va.

Glass. (Plate, etc.)

Binswanger & Co., Memphis, Tenn.

Governors. (Steam Engine.)

Pickering Governor Co., Portland, Conn.

Grain Elevator Supplies.

Caldwell & Sons Co., H. W., Chicago, Ill.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Philadelphia, Pa.

Granite.

Southern Marble & Granite Co., Spartanburg, S. C.

Graphite.

Dixon Crucible Co., Joseph, Jersey City, N. J.

Grates and Grate Bars.

Huber Grate Bar & Stoking Co., Baltimore, Md.
Thomas Grate Bar Co., Birmingham, Ala.

Gravel.

Arundel Sand & Gravel Co., Baltimore, Md.

Gravel. (Roofing and Road)

American Ballast Co., Knoxville, Tenn.

Gravity Spiral Chutes.

Mathews Gravity Carrier Co., Elwood City, Pa.

Grease.

Albany Lubricating Co., New York, N. Y.

Grease Cups.

Albany Lubricating Co., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, O.

Greases and Lubricating Compounds.

Albany Lubricating Co., New York, N. Y.
Galena Signal Oil Co., Franklin, Pa.
Wagner & Son Co., Wm., Baltimore, Md.
Texas Co., The, Houston, Tex.

Grinders. (Gypsum, Limestone, etc.)

Stedman's Foundry & Machine Wks., Aurora, Ind.

Grinding Wheels.

Carborundum Co., Niagara Falls, N. Y.
Vitrified Wheel Co., Westfield, Mass.

Groovers.

Huther Bros Saw Mfg Co., Inc Rochester, N. Y.

Gunpowder.

Du Pont Powder Co., Wilmington, Del.
Keystone National Powder Co., Emporium, Pa.

Hammers. (Steam.)

Erie Foundry Co., Erie, Pa.

Handle Machinery. [See Woodworking Mchy.]

Hangers. [See Pulleys, Shafting and Hangers.]

Hay Tools

Myers & Bro., F. E., Ashland, Ohio.

Heater. (Asphalt.)

Cummer & Son Co., F. D., The, Cleveland, Ohio.

Heating Apparatus, Engineers and Contractors.

Allen-Scales Engineering Co., Inc., Nashville, Tenn.
American Blower Co., Detroit, Mich.
Buffalo Steam Pump Co. Buffalo, N. Y.
Kelly, Thos. C., Cincinnati, Ohio.
Sturtevant, B. F., Hyde Park, Boston, Mass.
Walker Electric & Plumbing Co., Rome, Ga.

Hoisting Machinery.

Byers Machine Co., The John F. Ravenna, Ohio
Dake Engine Co., Grand Haven, Mich.
Erie Clutch & Pulley Co., Erie, Pa.
Flory Mfg. Co., S., Bangor, Pa.
Lidgerwood Mfg. Co., New York, N. Y.
Link-Belt Co., Philadelphia, Pa.
Mead-Morrison Mfg. Co., East Boston, Mass.
Monighan Machine Co., Chicago, Ill.
Stroudsburg Engine Works, Stroudsburg, Pa.

Hoists.

CHAIN.

Speidel, J. G., Reading, Pa.

ELECTRIC.

Lidgerwood Mfg. Co., New York, N. Y.
Mead-Morrison Mfg. Co., East Boston, Mass.
Monighan Mch. Co., Chicago, Ill.
National Hoisting Engine Co., Harrison, N. J.
Otis Elevator Co., New York, N. Y.
Patten Mfg. Co., Chattanooga, Tenn.

GASOLINE.

C. H. & E. Mfg. Co., Inc., Milwaukee, Wis.
Erie Clutch & Pulley Co., Erie, Pa.
Patten Mfg. Co., Chattanooga, Tenn.

Steam.

Byers Machine Co., John F., Ravenna, Ohio.
Flory Mfg. Co., S., Bangor, Pa.
Lidgerwood Mfg. Co., New York, N. Y.
Stroudsburg Engine Works, Stroudsburg, Pa.

Hollow Building Tile.

Killian Fireproofing & Brick Works, Killian, S. C.
Oconee Brick & Tile Co., Milledgeville, Ga.

Hoops, Bands, etc. (Galvanized.)

McCalla Co., Harold, Philadelphia, Pa.

Hose. [See Fire Hose.]

Hotels.

Cawthon, The, Mobile, Ala.
DeSoto Hotel, Tampa, Fla.
Hotel Essex, Boston, Mass.
Murphy Hotel, Richmond, Va.
San Carlos, The, Pensacola, Fla.
St. Charles Hotel, New Orleans, La.

Houses. (Multiple, Pressed Steel.)

Trussed Concrete Steel Co. Youngstown, O.

Hulls. (Steel, for Boats and Barges.)

American Bridge Co., of New York, N. Y.

Hydrants.

Bourbon Copper & Brass Wks. Co., Cincinnati, O.
Columbian Iron Works, Chattanooga, Tenn.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Myers & Bro., F. E., Ashland, O.
Wood & Co., R. D., Philadelphia, Pa.

Hydraulic Giants.

American Spiral Pipe Works, Chicago, Ill.

Hydrogen.

International Oxygen Co., New York, N. Y.

Hydrogen Generators.

International Oxygen Co., New York, N. N.

Ice and Refrigerating Boxes

Brecht Co., The, St. Louis, Mo.

Icemaking Machinery & Supplies.

Brecht Co., The, St. Louis, Mo.
De La Vergne Machine Co., New York, N. Y.
Frick Co., The, Waynesboro, Pa.
Huettman & Cramer Co., The, Detroit, Mich.
Johns-Manville Co., H. W., New York, N. Y.
Portsmouth Engine Co., Portsmouth, O.
Remington Machine Co., Wilmington, Del.
Vilter Mfg. Co., Milwaukee, Wis.
Vogt Machine Co., Henry, Louisville, Ky.
York Mfg. Co., York, Pa.

Incinerators.

Stacy-Bates Co., Minneapolis, Minn.

Incorporators. (Companies.)

Delaware Trust Co., Wilmington, Del.

Industrial, Agriculture and Commercial Opportunities.

Old Dominion Land Co., Newport News, Va.
Rappahannock Land & Develop. Corp. Richmond, Va.

CITIES AND TOWNS.

Newport News, Va., Old Dominion Land Co.
Norfolk, Va., Virginia Railway & Power, Co.
Petersburg, Va., Virginia Railway & Power Co.
Portsmouth, Va., Virginia Railway & Power Co.
Richmond, Va., Virginia Rwy. & Power Co.
Suffolk, Va., Virginia Railway & Power Co.

PUBLIC SERVICE CORPORATIONS

Virginia Railway and Power Co., Richmond, Va.

RAILROADS
Atlanta & West Point R. R., Atlanta, Ga.
Carolina, Clinchfield & O. Ry., Johnson City, Tenn
Central of Georgia Ry., Savannah, Ga.
Florida East Coast Ry., St. Augustine, Fla.
Illinois Central Railroad Co., Chicago, Ill.
Norfolk & Western Railway, Roanoke, Va.
Seaboard Air Line, Norfolk, Va.
Southern Railway System, Washington, D. C.

Industrial Track Work. [See Railways, Ind.]

Injectors.
Jenkins Bros., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
Randle Machinery Co., Cincinnati O.
Sellers & Co., Inc., Wm., Philadelphia, Pa.

Insulating Materials
General Electric Co., Schenectady, N. Y.
Johns-Manville Co., H. W., New York, N. Y

Insurance.
Hartford Steam Boiler Inspector & Insurance Co., Hartford, Conn.

Investment Securities.
Leach & Co., A. B., New York, N. Y.
New First National Bank, Columbus, O
Powell, Garard & Co., Chicago, Ill.
Provident Savings Bank & Trust Co., Cincinnati, Ohio.

Iron.
Allegheny Steel Co., Pittsburgh, Pa.
La Belle Iron Works, Steubenville, O.
Republic Iron & Steel Co., Youngstown, O.
Tennessee Coal, Iron & R. R. Co., Birmingham, Ala.
Union Drawn Steel Co., Beaver Falls, Pa.
Wood Iron & Steel Co., Alan, Philadelphia, Pa

Irrigation Machinery.
Cameron Steam Pump Wks., A. S. New York, N. Y.

Joist Hangers.
The Van Dorn Iron Works Co., Cleveland, Ohio

Kettles. (Steam Jacket.)
Badger & Sons Co., E. B., Boston, Mass.

Lace Leather.
Graton & Knight Mfg. Co., Worcester, Mass.

Lamps. (Arc and Incandescent.)
Boston-Economy Lamp Division, National Lamp Works of General Electric Co., Danvers, Mass.
General Electric Co., Schenectady, N. Y
Piedmont Electric Co., Asheville, N. C.

Lamps. (Carbon and Tungsten.)
Newman Electric Lamp Co., Cincinnati, O

Lamp Posts. (Electric, Gas.)
Western Gas Construction Co., Ft. Wayne, Ind.

Lands. (Mineral, Timber, Farm, etc.) [See Industrial, Agricultural and Commercial Opportunities.]

Landscape Architects (See Engineers.) [Landscape]

Lathes. (Engine.)
Greaves, Klusman Tool Co., The, Cincinnati, O.

Lawn Furniture. (Wire.)
Bolles Iron & Wire Works, J. E., Detroit, Mich.
Cincinnati Iron Fence Co., Cincinnati, Ohio.
Dufur & Co., Baltimore, Md.
Dufur, Baggott & Co., Baltimore, Md.

Lights. (Portable Acetylene.)
Milburn Co., Alex. N., Baltimore, Md.

Liquor Filters.
International Filter Co., Chicago, Ill.

Lithographers, Engravers.
Young & Selden Co., Baltimore, Md

Lockers (Steel)
Keighley Metal Ceiling Mfg. Co., S., Pittsburgh, Pa.
Van Harlingen, J. M., Atlanta, Ga.

Locomotives.
INDUSTRIAL.
Baldwin Locomotive Wks., The, Philadelphia, Pa.
Climax Mfg. Co., Corry, Pa.
Gurd, Geo. B., Cincinnati, O.
Davenport Locomotive Works, Davenport, Ia.
Fate Co., J. D., Plymouth, Ohio.
Jeffrey Mfg. Co., Columbus, O.
Lima Locomotive Corporation Lima, O.
Porter Co., H. K., Pittsburgh, Pa.
Southern Iron & Equipment Co., Atlanta, Ga.
Thaw & Williams, Cincinnati, O.

RAILWAY.
Baldwin Locomotive Wks., The, Philadelphia, Pa.
Lima Locomotive Corporation, Lima, O.
Porter Co., H. K., Pittsburgh, Pa.

Looms and Weaving Machinery.
Crompton & Knowles Loom Works, Worcester, Mass.
Draper Co., Hopedale, Mass.
Mason Machine Works, Taunton, Mass.
Saco-Lowell Shops, Boston, Mass.

Loom Harness.
American Supply Co., Providence, R. I.

Lubricants.
Albany Lubricating Co., New York, N. Y.
Otis Elevator Co., New York, N. Y.

Lubricants. (Graphite.)
Dixon Crucible Co., Joseph, Jersey City, N. J.

Lumber.
Industrial Lumber Co., Elizabeth, La.

Lumber. (Creosote.)
American Creosote Works, New Orleans, La.
National Lumber & Creosoting Co. Texarkana, Ark.

Lumber. (Heavy Construction, Pitch Pine, etc.)
Industrial Lumber Co., Elizabeth, La.
National Lumber & Creosot. Co., Texarkana, Ark.

Lumber Buggies.
Soule Steam Feed Works, Meridian, Miss.

Lumber Stackers.
Soule Steam Feed Works, Meridian, Miss

Machinery. (Special.)
Bliss Co., E. W., Brooklyn, N. Y.
Eagle Mfg. Co., Cincinnati, Ohio.
Kinsley, Lewis T., Alpena, Mich.
Universal Machine Co., Baltimore, Md.

Machinery and Supplies. (New and Second-Hand Bargains.)
Assets Purchasing Co., Wheeling, W. Va.
Birtwell, W. L., Phila., Pa.
Boston Iron & Metal Co., Balto., Md.
Central Transfer Co., Baltimore, Md.
Chicago House Wrecking Co., Chicago, Ill.
Cleveland Belting & Machinery Co., Cleveland, O.
Detrick & Harvey Mch. Co., Baltimore, Md.
Duzets & Son, New York, N. Y.
Eagle Pipe Supply Co., Inc., New York, N. Y.
Empire Mchy. & Supply Corp., Norfolk, Va.
Lehman, Charles L., Birmingham, Ala.
Lodge & Shipley Mach. Tool Co., Cincinnati, O.
Marine Metal & Supply Co., New York, N. Y.
Moore & Co., Edgar M., Pittsburgh Pa.
New River Co., Macdonald, W. Va.
Nussbaum & Co., V. M., Fort Wayne, Ind.
Pfannmueller Engineering Co., Chicago, Ill.
Power Equipment Co., New York, N. Y.
Prentiss Tool & Supply Co., New York, N. Y.
Randle Machinery Co., Cincinnati, O.
Read Co., Howard W., Philadelphia, Pa.
Samuel, Frank, Philadelphia, Pa.,
Seyfert's Sons, Inc., L. E., Philadelphia, Pa.
Tampa Machinery Exchange, Tampa, Fla.
Thaw & Williams, Cincinnati, O.
Toomey, Frank, Inc., Philadelphia, Pa.
Wilson Machy. Co., St. Louis, Mo.

Machine Tools.
Greaves, Klusman Tool Co., The, Cincinnati, O.

Machinists. (Engineers.)
Universal Machine Co., Baltimore, Md

Magnesia Materials.
Johns-Manville Co., H. W., New York, N. Y

Magnetic Separators.
Buchanan & Co., Inc. C. G., New York, N Y

Mail Chutes.
Cutler Mail Chute Co., Rochester, N. Y

Mechanical Draft.
Buffalo Forge Co., Buffalo, N. Y.
Sturtevant Co., B. F., Hyde Park, Boston, Mass

Metal Ceilings. [See Ceilings, Metal.]

Metaline.
Metaline Co., Long Island City, N. Y.

Metal. (For Tanks, Culverts, Roofing, etc.)
Whitaker-Glessner Co., Portsmouth Plant, Portsmouth, Ohio.

Metal Culverts. [See Culverts.] (Corrugated Metal.)

Metal Shingles. [See Shingles.] (Metal.)

Metal Window Frames and Sash. [See Window Frames and Sash.] (Fireproof.)

Metal Work. [See Sheet Metal Work.]

Metal-Working Machinery. (Sheet.)
Bliss Co., E. W., Brooklyn, N. Y.

Meters. (Water.)
Alberger Pump & Condenser Co., New York, N. Y.

Meter Boxes, Couplings, Gauges. (Water.)
Clark Co., H. W., Mattoon, Ill.

Micrometers, Calipers, etc.
Starrett Co., L. S., Athol, Mass.

Milk Filters. (Liquor, Milk, etc.)
International Filter Co., Chicago, Ill.

Mill Engineers and Architects.
O'Briant, W. C., Memphis, Tenn.
Sirrine, J. E., Greenville, S. C.

Mill Machinery and Supplies.
Bailey-Lebby Co., Charleston, S. C.
Cameron & Barkley Co., Charleston, S. C
Empire Mchy. & Supply Corp., Norfolk, Va.
Gainesville Iron Works, Gainesville, Ga.
Lombard Iron Works, Augusta, Ga.
Lunkenheimer Co., The, Cincinnati, O.
Mecklenburg Iron Works, Charlotte, N. C.
Salem Foundry & Machine Wks., Salem, Va.
Starr Co., B. F., Baltimore, Md.
Wolf Co., Chambersburg, Pa.

Mining Machinery. (Gold, Copper, Plate, etc.)
Bartlett & Snow Co., C. O., Cleveland, O.
Jeffrey Mfg. Co., Columbus, O.
McLanahan-Stone Mach. Co., Hollidaysburg, Pa.
Mecklenburg Iron Works, Charlotte, N. C.
Raymond Bros. Impact Pulv. Co., Chicago, Ill.

Mixers. (Concrete.)
Milwaukee Concrete Mixer Co., Milwaukee, Wis.
Van Duzen, Roye Co., The, Columbus, O.

Mixing Machinery.
Dunning, W. D., Syracuse, N. Y.

Mortar Colors.
Chattanooga Paint Co., Chattanooga, Tenn

Motor Trucks. (Gasoline.)
White Co., The, Cleveland, O.

Motor Trucks. (Second Hand.)
Mar-Del Mobile Co., Baltimore, Md.

Music Wire.
American Steel & Wire Co., Chicago, Ill.
Waterbury Co., The, New York, N. Y.

Nails. (Cut.)
La Belle Iron Works, Steubenville, O.

Nails and Spikes.
La Belle Iron Works, Steubenville, Ohio.
Republic Iron & Steel Co., Youngstown, O.
Youngstown Sheet & Tube Co., Youngstown, O.

Nuts. [See Bolts, Nuts, Rivets, etc.]

Oil. (Creosote.)
Barrett Mfg. Co., Philadelphia, Pa.

Oils. (Lubricating, Etc.)
Albany Lubricating Co., New York, N. Y.
Galena Signal Oil Co., Franklin, Pa.
Gulf Refining Co., Pittsburgh, Pa.
Robinson & Son Co., Wm. C., Baltimore, Md
Texas Co., The, Houston, Tex.

Oil Cans.
Wall Mfg. Supply Co., P., Allegheny, Pa.

Oil Engines. [See Engines (Oil).]

Oil Separators.
Stewart Heater Co., Buffalo, N. Y.

Oil Well Machinery.
Keystone Steam Well Mach. Co., Beaver Falls, Pa.
Williams Bros., Ithaca, N. Y.

Ore Handling Machinery. [See Coal Handling Machinery.]

Ornamental Iron Works.
Bolles Iron & Wire Wks., J. E. Detroit, Mich.
Chesapeake Iron Works, Baltimore, Md.
Dow Wire & Iron Works, Louisville, Ky.
Ohio Elevator & Mach. Co., The, Columbus, O.
Schrieber & Sons Co., The L., Cincinnati, O.
Snead Architectural Iron Works, Louisville, Ky.
The Van Dorn Iron Works Co., Cleveland, Ohio.

Oxygen.
International Oxygen Co., New York, N. Y.

Oxygen Generators.
International Oxygen Co., New York, N. Y.

Oxy-Acetylene Welding and Cutting Outfit and Supplies.
International Oxygen Co., New York, N. Y.
Milburn Co., Alex. N., Baltimore, Md.

Packing. (Asbestos, Metallic, Rubber, Leather, etc.)
Goodyear Tire & Rubber Co., Akron, O.
Graton & Knight Mfg. Co., Worcester, Mass.
Jenkins Bros., New York, N. Y.
Johns-Manville Co., H. W., New York, N. Y.
Power Specialty Co. New York, N. Y.

Paint. (Metal Surfaces.)
Dixon Crucible Co., Joseph, Jersey City, N. J.

Paint. (Preservative.)
Reeves Co., The, New Orleans, La.

Paint. (Roofing, Building, etc.)
Cameron & Barkley Co., Charleston, S. C.
Chattanooga Paint Co., Chattanooga, Tenn.

Paper. (Roofing, Building, Sheating, etc.)
Barrett Mfg. Co., Philadelphia, Pa.
Cameron & Barkley Co., Charleston, S. C.

Partitions. (Wooden Rolling.)
Van Harlingen, J. M., Atlanta, Ga.

Patent Attorneys.
Brown, Eugene C., Washington, D. C.
Chandlee & Chandlee, Washington, D. C.
Coleman, Watson E., Washington, D. C.
Evans & Co., Victor J., Washington, D. C.
Hodges, Vernon E., Washington, D. C.
Jenner, Herbert, Washington, D. C.
Lacey, R. S. & A. B., Washington, D. C
McLandie, A. S., Chattanooga, Tenn.
Mills, Mansell F., Washington, D. C.
Moore, Edw. Bruce, Washington, D. C.
Parker, C. L., Washington, D. C.
Woodworth John R., Washington, D. C.

Pavement Filler.
Barrett Mfg. Co., Philadelphia, Pa.

Paving Blocks. (Creosoted.)
International Creosoting & Construction Co., Galveston, Tex.
National Lumber & Creosoting Co., Texarkana, Ark.
Republic Creosoting Co. Indianapolis, Ind.
Southern Creosoting Co., Ltd., Slidell, La.
Southern Paving Const. Co., Chattanooga, Tenn
Southern Wood Preserving Co., Atlanta, Ga.
Wyckoff Pipe & Creosoting Co., Inc., The, New York, N. Y.

Paving Blocks. (Granite.)
Southern Marble & Granite Co., The, Spartansburg, S. C.

Paving Brick.
Carlyle Paving Brick Co., Portsmouth, O.
Copeland-Inglis Shale Brick Co., Birm'gh'm, Ala.
Dunn Wire-Cut-Lug Brick Co., Conneaut, Ohio
Southern Clay Mfg. Co., Chattanooga, Tenn.
Standard Brick Co., Macon, Ga

Paving Plants. (Asphalt.)
Barber Asphalt Paving Co., Philadelphia, Pa.
Cummer & Son Co., F. D., Cleveland, Ohio
Equitable Asphalt Maintenance Co., Kansas City, Mo.

Perforated Metal.
Caldwell & Son, H. W., Chicago, Ill.
Erdle Perforating Co., Rochester, N. Y.
Hendricks Mfg. Co., The, Carbondale, Pa.
Manhattan Perforated Metal Co., New York, N. Y
Mundt & Sons, Charles, Jersey City, N. J.

Petroleum Refiners.
Gulf Refining Co., Pittsburg, Pa.
Standard Oil Co., Inc., Newark, N. J.
Texas Co., The, Houston, Tex.

Phosphate Machinery.
American Process Co., New York, N. Y.
Bailey-Lebby Co., The, Charleston, S. C.
Cameron & Barkley Co., Charleston, S. C.
Link-Belt Co., Philadelphia, Pa
McLanahan-Stone Mach. Co., Hollidaysburg, Pa.
Raymond Impact Pulv. Co., Chicago, Ill.
Valk & Murdoch Iron Works, Charleston, S. C.

Pig Iron.
La Belle Iron Works, Steubenville, O.
Republic Iron & Steel Co., Youngstown, O.
Tennessee Coal, Iron & R. R. Co., B'mgh'm, Ala.

Pile Drivers.
Vulcan Iron Works, Chicago, Ill.

Pile Driving and Wharf Building.
Murray & Co., Inc., W. D., Norfolk, Va.

Piling. (Creosoted.)
American Creosote Works, New Orleans, La.
Intern'l Creosoting & Const. Co., Galveston, Tex
Southern Creosoting Co., Ltd., Slidell, La.
Southern Paving Const. Co., Chattanooga, Tenn.

Pillow Blocks.
Golden's Foundry & Machine Co., Columbus, Ga.
Medart Patent Pulley Co., St. Louis, Mo.

Pipe.
Allegheny Steel Co., Pittsburgh, Pa.
La Belle Iron Works, Steubenville, Ohio.
National Tube Co., Pittsburgh, Pa.
Youngstown Sheet & Tube Co., Youngstown, O.

Pipe. (Cast Iron.)
American Cast Iron Pipe Co., Birmingham, Ala.
American Pipe & Construction Co., Phila., Pa.
Clow & Sons, James B., Chicago, Ill.
Donaldson Iron Co., Emaus, Pa.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Lynchburg Foundry Co., Lynchburg, Va.
Massillon Iron & Steel Co., Massillon, O.
U. S. Cast Iron Pipe & Fdry. Co., Burlington, N. J
Wood & Co., R. D., Philadelphia, Pa.

Pipe. (Coil.)
Frick Co., The, Waynesboro, Pa.
National Pipe Bending Co., New Haven, Conn.
York Mfg. Co., York, Pa.

Pipe. (Corrugated Culvert.) [See Culvert (Corrugated Metal.)]

Pipe. (Riveted.)
Keeler Co., E., Williamsport, Pa.

Pipe. (Second Hand.)
Eagle Pipe Supply Co., Inc., New York, N. Y.
Marine Metal & Supply Co., New York, N. Y

Pipe. (Spiral Riveted.)
American Spiral Pipe Works, Chicago, Ill

Pipe. (Spiral Steel.)
Standard Spiral Pipe Works, Chicago, Ill.

Pipe. (Sewer, Vitrified.) [See Sewer Pipe, Vitrified.]

Pipe. (Wood.)
Wyckoff & Son Co., A., Elmira, N. Y.

Pipe. (Wrought Iron.)
Youngstown Sheet & Tube Co., Youngstown O

Pipe Bends.
Pittsburgh Valve, Fdry. & Const. Co., Pittsburgh Pa.

Pipe Covering. (Steam.)
Chesapeake Roofing & Pipe Covering Co., Inc Baltimore, Md.
Southern Asbestos Mfg. Co., Inc., Richmond, Va.
Wyckoff & Son Co., A., Elmira, N. Y.

Pipe Cutting and Threading Machinery.
Saunders' Sons, D., Yonkers, N. Y.

Pipe Fittings.
American Cast Iron Pipe Co., Birmingham, Ala
Lunkenheimer Co., The, Cincinnati, O.
Pittsburgh Valve, Fdry. and Const. Co., Pittsburgh, Pa.
York Mfg. Co., York, Pa.

Pipe Unions and Joints.
Dart Mfg. Co., E. M., Providence, R. I.
National Tube Co., Pittsburgh, Pa.

Pipe Wrenches and Cutters.
Saunders' Sons, D., Yonkers, N. Y.

Piping System. (Designed and Installed.)
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Pitch.
Barrett Mfg. Co., Philadelphia, Pa.

Plaster Machinery.
Bartlett & Snow Co., C. O., Cleveland, O.

Plates.
Allegheny Steel Co., Pittsburgh, Pa.
Cincinnati Iron & Steel Co., Cincinnati, O.
Wood Iron & Steel Co., Alan, Philadelphia, Pa.

Pneumatic Tools. [See Tools—Pneumatic.]

Poles. (Creosoted.)
American Creosote Works, New Orleans, La.
Internat'l Creosoting & Cons. Co., Galveston, Tex
National Lumber & Creos. Co., Texarkana, Ark.
Southern Creosoting Co., Ltd. Slidell, La.
Southern Paving Const. Co., Chattanooga, Tenn.
Southern Wood Preserving Co., Atlanta, Ga.

Polishing Machinery. (Wheels and Blocks.)
Carborundum Co., Niagara Falls, N. Y.
Vitrified Wheel Co., Westfield, Mass.

Power Plants. (Steam and Electric.)
Allen-Scales Engineering Co., Inc., Nashville, Tenn
Assets Purchasing Co., Wheeling, W. Va.

Power Transmission Machinery.
Bailey-Lebby Co., Charleston, S. C.
Caldwell & Son Co., H. W., Chicago, Ill.
Cresson-Morris Co., Philadelphia, Pa.
Golden's Foundry & Machine Co., Columbus, Ga.
Jeffrey Mfg. Co., Columbus, O.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Link-Belt Co., Philadelphia, Pa.
Medart Patent Pulley Co., St. Louis, Mo.
Reeves Pulley Co., Columbus Ind.
Schofield Iron Works, Macon, Ga.
Smith-Courtney Co., Richmond, Va.
Wolf Co., The, Chambersburg, Pa.
Wood's Sons, T. B., Chambersburg, Pa.

Presses. (Baling, Cottonseed Oil, etc. Hydraulic and Power.)
Boomer & Boschert Press Co., Syracuse, N. Y.
Cardwell Machine Co., Richmond, Va.
Continental Gin Co., Birmingham, Ala.
French Oil Mill Mchry. Co., The, Piqua, Ohio
Grote Mfg Co., F., Evansville, Ind.
Murray Co., The, Atlanta, Ga.
Saco-Lowell Shops, Boston, Mass.

Presses. (Stamping.)
Ams Machine Co., Max, Mt. Vernon, N. Y
Bliss Co., E. W., Brooklyn, N. Y.

Pressed Steel Construction.
Trussed Concrete Steel Co. Youngstown, O.

Printers. (Book, Catalog, Job etc.)
Fleet-McGinley Co., Baltimore, Md.

Promoters.
Electric Bond & Share Co., New York

Pulleys. (Friction Clutch.)
Caldwell & Son Co., H. W., Chicago, Ill.
Cresson-Morris Co., Philadelphia, Pa.
Medart Patent Pulley Co., St. Louis, Mo.
Moore & White Co., The, Philadelphia, Pa
Wood's Sons Co., T. B., Chambersburg, Pa.

Pulleys. (Steel Rim.)
Medart Patent Pulley Co., St. Louis, Mo.

Pulleys. (Wood Split.)
Caldwell & Son Co., H. W., Chicago, Ill
Medart Patent Pulley Co., St. Louis, Mo
Reeves Pulley Co., Columbus, Ind.
Salem Foundry & Machine Wks., Salem, Va

Pulleys, Shafting and Hangers.
Caldwell & Son Co., H. W., Chicago, Ill
Cresson-Morris Co., Philadelphia, Pa.
Erie Clutch & Pulley Co., Erie, Pa.
Golden's Foundry & Mach. Co. Columbus, Ga.
Jeffrey Mfg. Co., Columbus, O.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Link-Belt Co., Philadelphia, Pa.
Medart Patent Pulley Co., St. Louis, Mo.
Reeves Pulley Co., Columbus Ind.
wood's Sons Co., T. B., Chambersburg, Pa

Pulverizers.
Austin Mfg. Co., Chicago, Ill.
Gruendler Pat. Crusher & Pulv. Co., St. Louis, Missouri.
Jeffrey Mfg. Co., Columbus, O.
McLanahan-Stone Mach. Co., Hollidaysburg, Pa.
Raymond Bros., Impact Pulv. Co., Chicago, Ill.
Stedman's Foundry & Machine Wks., Aurora, Ind
Western Wheeled Scraper Co., Aurora, Ill.

Pumping Machinery.
Affiliated Manufacturers Co., Milwaukee, Wis.
Alberger Pump & Condenser Co., New York, N. Y.
Cameron Steam Pump Wks., A. S. New York, N. Y.
Cook, A. D., Lawrenceburg, Ind.
Deane Steam Pump Plant, Holyoke, Mass.
Erie Pump & Equipment Co., Erie, Pa.
Emerson Pump & Valve Co., Alexan'ria, Va.
Holland Machine Co., New York, N. Y.
Keystone Pump & Well Engine Co., Beaver Falls, Pa.
Moffatt Machinery Mfg. Co., Charlotte, N. C.
Morris Machine Works, Baldwinsville, N. Y.
Myers & Bros., F. E., Ashland, O.
Piatt Iron Works Co., Dayton, Ohio.
Wood & Co., R. D., Philadelphia, Pa.
Worthington, Henry R., Harrison, N. J.

Pumps. (Air.)
Blakeslee Mfg. Co., Du Quoin, Ill.

Pumps. (Air Lift.)
Sullivan Mchry. Co., Chicago, Ill.

Pumps. (Boiler Feed.)
Alberger Pump & Condenser Co., New York, N. Y.
Blakeslee Mfg. Co., Du Quoin, Ill.
Cameron Steam Pump Wks., A. S., New York, N. Y.
Jeanesville Iron Works Plant, Hazleton, Pa.
Moffatt Machinery Mfg. Co., Charlotte, N. C.
Murray Iron Works Co., Burlington, Ia.
Myers & Bros., F. E., Ashland, O.

Pumps. (Centrifugal.)
Alberger Pump & Condenser Co., New York, N. Y.
Buffalo Steam Pump Co., Buffalo, N. Y.
Cameron Steam Pump Wks., A. S., New York, N. Y.
Erie Pump & Equipment Co., Erie, Pa.
Holland Machine Co., New York, N. Y.
Jeanesville Iron Works Plant, Hazleton, Pa.
Morris Machine Works, Baldwinsville, N. Y
Pacific Flush Tank Co., New York, N. Y.
Piatt Iron Works Co., Dayton, Ohio.
Wood & Co., R. D., Philadelphia, Pa.
Worthington, Henry R., Harrison, N. J.

Pumps. (Deep Well.)
Cameron Steam Pump Wks., A. S., New York, N. Y.
Cook, A. D., Lawrenceburg, Ind.
Holland Machine Co., New York, N. Y.
Keystone Pump & Well Engine Co., Beaver Falls, Pa.
Layne & Bowler Co., Houston, Tex.

Pumps (Dredging.)
Buffalo Steam Pump Works, Buffalo N. Y.
Erie Pump & Equipment Co., Erie, Pa.
Holland Mch. Co., New York, N. Y.
Morris Machine Works, Baldwinsville, N. Y.
Wood & Co., R. D. Phila., Pa.

Pumps. (Hydraulic.)
Buffalo Steam Pump Co., Buffalo, N. Y.
Cameron Steam Pump Wks., A. S., New York, N. Y
Cardwell Machine Co., Richmond, Va.
Erie Pump & Equipment Co., Erie, Pa.
French Oil Mill Mchry. Co., The, Piqua, O.
Holland Mch. Co., New York, N. Y

Pumps. (Steam.)
Alberger Pump & Condenser Co., New York, N. Y.
Blake & Knowles Steam Pump Works, East Cambridge, Mass.
Blakeslee Mfg. Co., Du Quoin, Ill.
Buffalo Steam Pump Co., Buffalo, N. Y.
Cameron Steam Pump Wks., A. S., New York, N. Y.
Cameron & Barkley Co., Charleston, S. C.
Clayton Air Compressor Plant, Cambridge, Mass.
Cook, A. D., Lawrenceburg, Ind.
Deane Steam Pump Plant, Holyoke, Mass.
Emerson Pump & Valve Co., Alexandria, Va
Fairbanks-Morse & Co., Atlanta, Ga.
Keystone Pump & Well Engine Co., Beaver Falls, Pa.
Murray Iron Works Co., Burlington, Ia.
Snow Steam Pump Plant, The, New York, N. Y.
Worthington, Henry R., Harrison, N. J.

Pumps. (Trench.)
Affiliated Manufacturers Co., Milwaukee, Wis.
C. H. & E. Mfg. Co., Inc., Milwaukee, Wis.

Pumps. (Turbine Driven.)
Sturtevant Co., B. F., Hyde Park, Boston, Mass.

Pumps. (Vacuum.)
Cameron Steam Pump Wks., A. S., New York, N. Y.

Pumps. (Water-works.)
Holland Mch. Co., New York, N. Y
Piatt Iron Works Co., Dayton, Ohio.

Pump Leathers.
Graton & Knight Mfg. Co., Worcester, Mass.

Punching and Shearing Machinery.
Bliss Co., E. W., Brooklyn, N.Y.

Railroads. [See Industrial, Agricultural and Commercial Opportunities.]

Railroad Equipment and Supplies. (New and Second-hand.)
American Frog & Switch Co., Hamilton, O.
Bailey-Lebby Co., The, Charleston, S. C.
Birmingham Rail & Loco. Co., Birmingham, Ala.
Cincinnati Frog & Switch Co., Cincinnati, O.
Curd, Geo. B., Cincinnati, O.
Fairbanks-Morse & Co., Atlanta, Ga.
Foster Co., L. B., Pittsburgh, Pa.
Georgia Car & Locomotive Co., Atlanta, Ga
Hirsch Rolling Mill Co., St. Louis, Mo.
Hoffman & Co., Inc., R. C., Baltimore, Md.
Hyde, Chas., Pittsburgh, Pa.
Kilby Frog & Switch Co., Birmingham, Ala.
National Steel Rail Co., St. Louis, Mo.
Read Co., Howard W., Philadelphia, Pa.
Robinson & Orr, Pittsburgh, Pa.
Sherwood, E. C., New York, N. Y
Southern Iron & Equipment Co., Atlanta, Ga.
Steel Rail Supply Co., The, New York, N. Y.
Thaw & Williams, Cincinnati, O.
United States Rail Co., Cumberland, Md.
Weir Frog Co., Cincinnati, O.
West Virginia Rail Co., Huntington, W. Va.
Wilson & Co., E. H., Philadelphia, Pa.
Wilson Mach. Co., St. Louis, Mo.
Zelnicker Supply Co., Walter A., St. Louis, Mo

Railroad Frogs & Switches.
American Frog & Switch Co., Hamilton, O.
Cincinnati Frog & Switch Co., Cincinnati, O.
Conley Frog & Switch Co., Memphis, Tenn.
Kilby Frog & Switch Co., Birmingham, Ala.
Robinson & Orr, Pittsburgh, Pa.
Sweet's Steel Co., Williamsport, Pa.
Weir Frog Co., Cincinnati, O.

Rails. (Steel.)
Carnegie Steel Co., Pittsburgh, Pa.
Foster Co., L. B., Pittsburgh, Pa.
Franke, J. E., Atlanta, Ga.
Gulf States Steel Co., Birmingham, Ala.
Hirsch Rolling Mill Co., St. Louis, Mo.
Hoffman & Co., Inc., R. C., Baltimore, Md.
Hyde, Chas., Pittsburgh, Pa.
Lackawanna Steel Co., Lackawanna, N. Y.
Levis & Co., Henry, Philadelphia, Pa
National Steel Rail Co., St. Louis, Mo.
Republic Iron & Steel Co., Youngstown, O.
Robinson & Orr, Pittsburgh, Pa.
Sherwood, E. C., New York, N. Y.
Southern Iron & Equipment Co., Atlanta, Ga.
Steel Rail Supply Co., The, New York, N. Y.
Sweet's Steel Co., Williamsport, Pa.
Tennessee Coal, Iron & R. R. Co., B'mgh'm, Ala.
United States Rail Co. Cumberland, Md.
West Virginia Rail Co., Huntington, W. Va.
Wilson & Co., E. H., Philadelphia, Pa.

Rail Braces, Crossings, etc. [See R. R. Frogs and Switches.]

Railings and Grilles. (Brass.)
Newman Mfg. Co., Cincinnati, O.

Railways. (Industrial.)
Chase Fdry. & Mfg. Co., Columbus, O.
Cincinnati Frog & Switch Co., Cincinnati, O.
Hunt Co., Inc., C. W., West New Brighton, N. Y.
Link-Belt Co., Philade'phia, Pa.

Rams (Hydraulic.) [See Hydraulic Ram.]

Reamers.
Morse Twist Drill & Mch. Co., New Bedford, Mass

Reeds.
American Supply Co., Providence, R. I.

Refrigerating Machinery and Apparatus.
Huetteman & Cramer Co., The, Detroit, Mich
Portsmouth Engine Co., Portsmouth O.
Remington Machine Co., Wilmington, Del.
Vilter Mfg. Co., Milwaukee, Wis.
Vogt Machine Co., Henry, Louisville, Ky
York Mfg. Co., York, Pa.

Reinforcing Bars. [See Concrete Reinforcing Bars.]

River and Harbor Improvements. (Dredges, Dock, Wharves, etc.)
Globe Dredging Co., Savannah, Ga.

Road Expansion Joints.
Philip Carey Co., The, Cincinnati, Ohio.

Road and Street Machinery.
Austin-Western Road Mchy. Co., The, Chicago, Ill.
Buffalo Steam Roller Co., Buffalo, N. Y
Equitable Asphalt Maintenance Co., Kansas City, Mo.
Erie Machine Shops, Erie, Pa.
Galion Iron Works & Mfg. Co., The, Galion, Ohio.
Holt Manufacturing Co., Inc., The, Peoria, Ill.
Kelly Springfield Road Roller Co., Springfield, O.
Kilbourne & Jacobs Mfg. Co., Columbus, Ohio.
Russell Grader Mfg. Co., Minneapolis, Minn.
Thew Automatic Shovel Co. Lorain, Ohio.
Universal Road Mchy. Co., Kingston, N. Y.
Western Wheeled Scraper Co., Aurora, Ill.

Road and Street Materials.
Barber Asphalt Paving Co. Philadelphia,, Pa.
Barrett Mfg. Co., Philadelphia, Pa.
Rocmac Road Corp. of America, Cleveland, Ohio
Semet-Solvay Co., Solvay, N. Y.
Standard Oil Co., Inc., Newark, N. J.
Texas Co., The, Houston, Tex.
U. S. Asphalt Refining Co., New York, N. Y.

Road Binders
Barber Asphalt Paving Co., Philadelphia, Pa.
Barrett Mfg. Co., Phila., Pa.
Semet-Solvay Co., Solvay, N. Y.
Standard Oil Co., Newark, N. J.
U. S. Asphalt Refining Co. New York, N. Y.

Road Roller. (Steam.)
Austin-Western Road Mchy. Co., The, Chicago, Ill.
Barber Asphalt Paving Co. Iroquois Works, Buffalo, N. Y.
Buffalo Steam Roller Co., Buffalo, N. Y.
Erie Machine Shops, Erie, Pa.
Kelly Springfield Road Roller Co., Springfield, O.
Universal Road Mchy. Co., Kingston, N. Y.

Road Oil.
Gulf Refining Co., Pittsburg, Pa
Standard Oil Co., Inc., Newark, N. J.
Texas Co., The, Houston, Tex.
U. S. Asphalt Refining Co. New York, N. Y

Road Preservatives.
Barrett Mfg. Co., Philadelphia, Pa
Gulf Refining Co., Pittsburg, Pa.
Semet-Solvay Co., Solvay, N. Y.
Standard Oil Co., Inc., Newark, N. J.
Texas Co., The, Houston, Tex.
U. S. Asphalt Refining Co New York, N. Y.

Road Scarifiers.
Buffalo Steam Roller Co., Buffalo, N. Y.
Galion Iron Works & Mfg. Co., The, Galion, Ohio

Rock Crushers. [See Crushers, Rock.]

Rollers. (For Moving Houses, Machinery, Etc., Ogden, O. O., Baton Rouge, La.

Roller Covering Supplies.
American Supply Co., Providence, R. I.

Roofing. (Cement Tile.)
American Cement Tile Mfg. Co., Pittsburgh, Pa.

Roofing. (Ready Prepared: Felt, Tar, Asbestos, Asphalt.)
American Sheet & Tin Plate Co., Pittsburgh, Pa.
Asbestos Protected Metal Co., Pittsburgh, Pa.
Barrett Mfg. Co., Philadelphia, Pa.
Cameron & Barkley Co., Charleston, S. C.
Chesapeake Roofing & Pipe Covering Co., Inc., Baltimore, Md.
Johns-Manville Co., H. W., New York, N. Y.

Roofing. (Metal Shingles.) [See Shingles, Metal.]
Bristol Metal Mfg. Co., Bristol, Va.-Tenn.
Cortright Metal Roofing Co., Philadelphia, Pa.
Edwards Mfg. Co., The, Cincinnati, O.
Hyndman Roofing Co., Cincinnati, O.
Southern Sheet & Tin Plate Co., Ashland, Ky.

Roofing. (Slate.)
East Bangor Consol. Slate Co., East Bangor, Pa.
Genuine Bangor Slate Co., Easton, Pa.
Johnson, E. J., New York, N. Y.
Standard Slate Corp., Esmont, Va.

Roofing and Siding. (Metal.)
American Sheet & Tin Plate Co., Pittsburgh, Pa.
Asbestos Protected Metal Co., Pittsburgh, Pa.
Cameron & Barkley Co., Charleston, S. C.
Cortright Metal Roofing Co., Philadelphia, Pa.
Edwards Mfg. Co., The, Cincinnati, O.
Hyndman Roofing Co., Cincinnati, O.
Southern Sheet & Tin Plate Co., Ashland, Ky
Steel Products Co., The, Savannah, Ga.
Tennessee Metal Culvert Co., Nashville, Tenn.
Whitaker-Glessner Co., Portsmouth Works, Portsmouth, Ohio.
Youngstown Sheet & Tube Co., Youngstown, O.

Rope. (Manila, Sisal, Hemp, etc.)
Broderick & Bascom Rope Co., St. Louis, Mo.
Columbian Rope Co., Auburn, N. Y.
Waterbury Co., New York, N. Y.
Wood's Sons Co., T. B., Chambersburg, Pa

Rope. (Wire.) [See Wire Rope.]
American Steel & Wire Co., Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis, Mo.
Hunt Co., Inc., C. W., West New Brighton, N. Y.
Roebling's Sons Co., John A., Trenton, N. J.
Waterbury Co., New York, N. Y.
Youngstown Sheet & Tube Co., Youngstown, O.

Rope Drives.
Caldwell & Son, H. W., Chicago, Ill.
Cresson-Morris Co., Philadelphia, Pa.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Medart Patent Pulley Co., St. Louis, Mo.
Waterbury Co., New York, N. Y.
Wood's Sons Co., T. B., Chambersburg, Pa.

Rubber Goods.
Eureka Fire Hose Mfg. Co., New York, N. Y.
Goodyear Tire & Rubber Co., Akron, O.

Rules. (Steel.)
Lufkin Rule Co., Saginaw, Mich.
Starrett Co., L. S., Athol, Mass.

Saddles. (For Cotton Mchy.)
Graphite Lubricating Co., Bound Brook, N. J.

Safes and Vaults.
York Safe & Lock Co., York, Pa.

Sand.
Arundel Sand & Gravel Co., Baltimore, Md.
Kirkpatrick Sand & Cement Co., Birmingham, Ala.

Sand. (Foundry.)
Newport Sand Bank Co., Inc., Newport, Ky.

Sand Dryers.
American Process Co., New York, N. Y.
Ripley Foundry & Mach. Co., The, Ripley, Ohio.

Sap Stain Preventive.
Church & Dwight Co., New York, N. Y.

Sash Chain.
Niagara Falls Metal Stamping Works, Niagara Falls N. Y.

Saws.
Gerlach Co., Peter, Cleveland, O.
Huther Bros. Saw Mfg. Co., Inc., Rochester, N Y

Saws. (Hack.)
Starrett Co., L. S., Athol, Mass

Saw Rigs. (Portable.)
C. H. & E. Mfg. Co., Inc., Milwaukee, Wis.

Sawmill Dogs.
Soule Steam Feed Works, Meridian, Miss

Sawmills.
Gainesville Iron Works, Gainesville, Ga.

Sawmill Machinery.
Bailey-Lebby Co., Charleston, S. C.
Cameron & Barkley Co., Charleston, S. C
Mecklenburg Iron Works, Charlotte, N. C.
Schofield Iron Works, Macon, Ga.
Southern Engine & Boiler Wks., Jackson, Tenn.

Saw Sharpeners.
Carborundum Co., Niagara Falls, N. Y.
Vitrified Wheel Co., Westfield, Mass.

Saw Sharpeners and Files. (Cotton Gin.)
Carver Cotton Gin Co., East Bridgewater, Mass.

Scales.
Standard Scale & Supply Co., Pittsburgh, Pa.

Screens. (Fly, Window and Door.)
New Jersey Wire Cloth Co., Trenton, N. J.

Screens. (Mining, Stone, etc.)
Erdle Perforating Co., Rochester, N. Y.
Hendrick Mfg. Co., Carbondale, Pa.
Jeffrey Mfg. Co., Columbus, O.
McLanahan-Stone Mach. Co., Hollidaysburg, Pa.
Mundt & Sons, Charles, Jersey City, N. J.
New Jersey Wire Cloth Co., Trenton, N. J.

Screenings. (For Concrete and Road Construction.)
American Ballast Co., Knoxville, Tenn.

Screws. (Machine.)
Progressive Mfg. Co., Torrington, Conn.

Screws. (Safety Set.)
Allen Manufacturing Co., Inc., Hartford, Conn.

Screw Machine Products.
Progressive Mfg. Co., Torrington, Conn.

Separators. (Dust.)
Buffalo Forge Co., Buffalo, N. Y.
Raymond Bros. Impact Pulv. Co., Chicago, Ill.

Sewer Flushing Siphons.
Pacific Flush Tank Co., New York, N. Y.

Sewer Joint Compounds.
Pacific Flush Tank Co., New York, N. Y.

Sewer Pipe. (Vitrified.)
Bannon Pipe Co., P., Louisville, Ky.
Blackmer & Post Pipe Co., St. Louis, Mo.
Cannelton Sewer Pipe Co., Cannelton, Ind.
Owensboro Sewer Pipe Co., Owensboro, Ky.
Pomona Terra-Cotta Co., Pomona, N. C.
Southern Sewer Pipe Co., Birmingham, Ala.
Stevens Sons Co., H., Macon, Ga.

Sewer Pipe and Drains. (Monolithic Concrete)
Requarth Co., C. W., Charlotte, N. C.

Sewage Pumping and Disposal Apparatus.
Pacific Flush Tank Co., New York, N. Y.

Shafting. (Cold Rolled Steel.)
American Steel & Wire Co., Chicago, Ill.

Shafting. (Polished Steel.)
Jones & Laughlin Steel Co., Pittsburgh, Pa
Medart Patent Pulley Co., St. Louis, Mo.
Pardee Works, C., Perth Amboy, N. J.
Republic Iron & Steel Co., Youngstown, O.
Union Drawn Steel Co., Beaver Falls, Pa.

Shafting. [See Pulleys, Shafting and Hangers.]

Sharpening Stones.
Carborundum Co., Niagara Falls, N. Y.
Vitrified Wheel Co., Westfield, Mass.

Shearing Machinery.
Erie Foundry Co., Erie, Pa.

Sheet, Brass and Copper.
McKenna Bros. Brass Co., Pittsburgh, Pa.

Sheet Metal Work.
Atlas Metal Works, Dallas, Tex.
Dixie Culvert & Metal Co., Atlanta, Ga.
Fouts Co., C. C., Middletown, O.
Lone Star Culvert Co., Houston, Tex
Niagara Falls Metal Stamping Works, Niagara Falls, N. Y.
Salisbury Metal Culvert Co., Salisbury, N. C.
South Atlantic Blow Pipe & Sheet Metal Co Savannah, Ga.
Steel Products Co., The, Savannah, Ga.
Tennessee Metal Culvert Co., Nashville, Tenn
Virginia Metal & Culvert Co., Roanoke, Va

Sheet Metal Working Machinery.
Bliss Co., E. W., Brooklyn, N. Y
Eagle Mfg Co., Cincinnati, Ohio.

Sheet Steel and Iron.
American Sheet & Tin Plate Co., Pittsburgh, Pa.
Cincinnati Iron & Steel Co., Cincinnati, O.
La Belle Iron Works, Steubenville, O.
Republic Iron & Steel Co., Youngstown, O.
Southern Sheet & Tin Plate Co., Ashland, Ky.
Tennessee Coal, Iron & R. R. Co., B'mgh'm, Ala
Whitaker-Glessner Co., Portsmouth Works, Portsmouth, Ohio.
Wood Iron & Steel Co., Alan, Philadelphia, Pa.
Youngstown Sheet & Tube Co., Youngstown, O

Shelving. [(Steel) Vault, Store, Etc.]
Van Harlingen, J. M., Atlanta, Ga.

Shingles. (Metal.)
Bristol Metal Mfg Co., Bristol, Va.-Tenn.
Cortright Metal Roofing Co., Philadelphia, Pa
Edwards Mfg. Co., Cincinnati, O.
Hyndman Roofing Co., Cincinnati, O.
Southern Sheet & Tin Plate Co., Ashland, Ky

Shop Furniture. (Steel.)
Merritte & Co. Camden, N. J

Shovels. (Special for Any Purpose.)
Conneaut Shovel Co., The, Conneaut, Ohio.

Shovels. (Steel, Brass, Aluminum, etc.)
Conneaut Shovel Co., The, Conneaut, Ohio.

Shutters. (Iron.)
Bolles Iron & Wire Works, J. E., Detroit, Mich
Chesapeake Iron Works, Baltimore, Md.

Shutters. (Steel Rolling.)
Kinnear Mfg. Co., Columbus, O.

Shutters. (Tin Clad.)
Victor Mfg. Co., Newburyport, Mass

Silos. (Metal.)
Canton Culvert & Silo Co., Canton, O.
Dixie Culvert & Metal Co., Atlanta, Ga
Fouts Co., C. C., Middletown O.
Lone Star Culvert Co., Houston, Tex.
Tennessee Metal Culvert Co., Nashville Tenn.
Virginia Metal & Culvert Co., Roanoke, Va.

Slate. (Roofing, Sanitary, Structural, etc.)
East Bangor Con. Slate Co., East Bangor, Pa.
Genuine Bangor Slate Co., Easton, Pa.
Johnson, E. J., New York, N. Y.
Standard Slate Corp., Esmont, Va.

Sluice Gates and Appliances.
Coldwell-Wilcox Co., Newburgh, N Y.

Smokestacks. (Iron and Steel.)
Chattanooga Boiler & Tank Co., Chat'n'ga, Tenn.
Des Moines Bridge & Iron Co., Des Moines, Ia
Keeler Co., E., Williamsport, Pa.
Lombard Iron Works, Augusta, Ga.
Pittsburgh-Des Moines Steel Co., Pittsburgh Pa
Schofield Iron Works, Macon, Ga.
Virginia Bridge & Iron Co., Roanoke, Va.

Soda. (Bicarbonate.)
Church & Dwight Co., New York, N. Y

Speed Changes. (Variable.)
Moore & White Co., The, Philadelphia, Pa
Reeves Pulley Co., Columbus, Ind.

Speed Reducing Transmissions.
James Mfg. Co., D. O., Chicago, Ill.

Spikes. (Railroad.)
Hoffman & Co., Inc., R. C., Baltimore, Md

Spikes. [See Nails and Spikes.]

Springs. (Machinery, Railway, Spiral.)
Cary Spring Works, New York, N. Y
Raymond Mfg Co., Ltd., Corry, Pa.

Stamp Mills.
Mecklenburg Iron Works, Charlotte, N. C

Stamps. (Brass, Rubber.)
Baltimore Office Supply Co., Baltimore, Md.
Dorman Co., J. F. W., Baltimore, Md.

Standpipes.
Chattanooga Boiler & Tank Co., Chattanooga Tenn.
Chicago Bridge & Iron Works, Chicago, Ill.
Des Moines Bridge & Iron Co., Des Moines, Ia.
Hartley Boiler Works, Montgomery, Ala
Keeler Co., E., Williamsport, Pa.
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.
Struthers-Wells Co., Warren, Pa.

Stapling Machinery. (Fruit Package, Basket, etc.)
Saranac Machine Co., Benton Harbor, Mich.

Stationery. (Envelopes, Letter and Bill Heads etc.)
Young & Selden Co., Baltimore, Md

Steam Feeds.
Soule Steam Feed Works, Meridian Miss

Steam Fitters' Supplies.
Saunders' Sons, D., Inc., Yonkers,

Steam Heating.
Keeler Co., E., Williamsport, Pa

Steamship Lines. (Coastwise.)
Baltimore Steam Packet Co., Baltimore, Md.
Chesapeake Steamship Co., Baltimore, Md.
Detroit & Cleveland Navigation Co., Detroit, Mich
Merchants & Miners' Trans. Co., Baltimore, Md.

Steamship Lines. (Trans Atlantic.)
Cunard Steamship Co., Ltd., New York, N. Y.

Steam Hammers.
Erie Foundry Co., Erie, Pa.

Steam Shovel Chains.
Weimer Chain & Iron Co., Lebanon, Pa.

Steam Shovels.
American Clay Machinery Co., The, Bucyrus, Ohio
Fairbanks Steam Shovel Co., Marion, O.
Marion Steam Shovel Co., Marion, Ohio.
Sherwood, E. C., New York, N. Y.
Thaw & Williams, Cincinnati, O.
Thew Automatic Shovel Co., Lorain, Ohio.

Steam Specialities.
Lunkenheimer Co., The, Cincinnati, Ohio.
Powell Co., Wm., Cincinnati, O.

Steam Traps.
Jenkins Bros., New York, N. Y.

Steel.
Carnegie Steel Co. Pittsburgh, Pa.
Dietrich Bros., Baltimore, Md.
Gulf States Steel Co., Birmingham, Ala.
Hoffman & Co., Inc., R. C., Baltimore, Md
Jones & Laughlin Steel Co., Pittsburgh, Pa.
La Belle Iron Works, Steubenville, O.
Lackawanna Steel Co., Lackawanna, N. Y.
Pardee Works, C., Perth Amboy, N. J.
Republic Iron & Steel Co., Youngstown, O.
Tennessee Coal, Iron & R. R. Co., Birm'gh'm, Ala
Union Drawn Steel Co., Beaver Falls, Pa.
Upson Nut Co., The, Cleveland, O.
Whitaker-Glessner Co., Portsmouth Works, Portsmouth, Ohio.
Wood Iron & Steel Co., Alan, Philadelphia, Pa.
Youngstown Sheet & Tube Co., The Youngstown, O

Steel. (Tool.)
Bourne-Fuller Co. The, Cleveland, Ohio.
McKenna Bros., Brass Co., Pittsburgh, Pa.
Union Drawn Steel Co., Beaver Falls Pa.

Steel. (Vanadium.)
Carnegie Steel Co., Pittsburgh, Pa.
Union Drawn Steel Co., Beaver Falls, Pa.

Steel Buildings. (Designers, Builders.)
Amer. Bridge Co., of New York, N. Y.
Belmont Iron Works, Philadelphia, Pa.
Case Crane & Engineering Co., Columbus, Ohio.
Champion Bridge Co., Wilmington, O.
Chesapeake Iron Works, Baltimore, Md.
Des Moines Bridge & Iron Co., Des Moines, Ia.
Phoenix Iron Co., Philadelphia, Pa.
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.
Richmond Structural Steel Co., Richmond, Va.
Schreiber & Sons Co., The L., Cincinnati, O.
Snead Architectural Iron Wks., Louisville, Ky.
Turner, O. A. P., Minneapolis, Minn.
Virginia Bridge & Iron Co., Roanoke, Va.

Steel Castings.
Crucible Steel Castings Co., Lansdowne, Pa.
Hoffman & Co., Inc., R. C., Baltimore, Md.
Riverside Steel Casting Co., Newark, N. J.

Steel Plate Work.
Casey-Hedges Co., Chattanooga, Tenn.
Chattanooga Boiler & Tank Co., Chat'n'ga, Tenn.
Coatesville Boiler Works, Coatesville, Pa.
Hoffman & Co., Inc., R. C., Baltimore, Md.
Memphis Steel Construction Co., Memphis, Tenn.
Phoenix Iron Co., Philadelphia, Pa.
Struthers-Wells Co., Warren, Pa

Steel Protector. (Concrete Curb, Steps, etc.) [See Curb Protector Steel.]

Steel Sheet Piling.
Carnegie Steel Co., Pittsburgh, Pa.
Franks, J. E., Atlanta, Ga.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Lackawanna Steel Co., Lackawanna, N. Y

Stencils.
Baltimore Office Supply Co., Baltimore, Md.
Dorman Co., J. F. W., Baltimore, Md.

Stirrups. (Building.)
Chesapeake Iron Works, Baltimore, Md.

Stock Certificates, Bonds and Seals.
Baltimore Office Supply Co., Baltimore, Md
Dorman Co., J. F. W., Baltimore, Md.

Stokers. (Hand.)
Enter Grate Bar & Stoking Co., Baltimore, Md.

Stokers. (Mechanical.)
Babcock & Wilcox Co., New York, N. Y.
Westinghouse Machine Co., Pittsburgh, Pa.

Stone. (Building.)
Atlantic Stone Co., Atlanta, Ga.
Bedford Steam Stone Works, Bedford, Ind.
Kirkpatrick Sand & Cement Co., Birmingham, Ala.

Stone. (Crushed.) [See Crushed Stone.]

Stone and Gravel Plants.
Weller Mfg. Co., Chicago, Ill.

Storage Batteries.
Elec. Storage Battery Co., The, Philadelphia, Pa
Westinghouse Machine Co., Pittsburgh, Pa.

Strapping Leather.
Graton & Knight Mfg. Co., Worcester, Mass

Structural Steel and Iron.
Allegheny Steel Co., Pittsburgh, Pa
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Belmont Iron Works, Philadelphia, Pa
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Chicago Bridge & Iron Works, Chicago, Ill
Cincinnati Iron & Steel Co., Cincinnati, O.
Des Moines Bridge & Iron Co., Des Moines, Ia.
Dietrich Bros., Baltimore, Md.
East St. Louis Bridge Co., East St. Louis, Ill.
Grainger & Co., Inc., Louisville, Ky.
Hoffman & Co., Inc., R. C., Baltimore, Md.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Lackawanna Steel Co., Lackawanna, N. Y.
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Phoenix Iron Co., Philadelphia, Pa.
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.
Republic Iron & Steel Co., Youngstown, O.
Richmond Structural Steel Co., Richmond, Va.
Scaife & Sons Co., Wm. B., Pittsburgh, Pa.
Schreiber & Sons Co., The L., Cincinnati, O.
Snead Architectural Iron Works, Louisville, Ky
Southern Sheet & Tin Plate Co., Ashland, Ky.
Steel Products Co., The, Savannah, Ga.
Tennessee Coal, Iron & R. R. Co., Birm'gh'm, Ala.
The Van Dorn Iron Works Co., Cleveland, Ohio.
Vincennes Bridge Co., Vincennes, Ind.
Virginia Bridge & Iron Co., Roanoke, Va.

Stump Pullers.
Zimmerman Steel Co., Lone Tree, Iowa.

Sulphur.
Union Sulphur Co., New York, N. Y.

Super-Heaters. (Steam.)
Babcock & Wilcox Co., New York, N Y
Power Specialty Co., New York, N. Y.

Surfacing Machines. (For Floors.)
Wayrell Chappell & Co., Chicago, Ill.

Surveying Instruments.
Weber & Co., F., Philadelphia, Pa.

Swinging Engines.
Duke Engine Co., Grand Haven, Mich.

Switchboards, Switches, etc.
General Electric Co., Schenectady, N. Y

Switches. [See Railroad Frogs and Switches.]

Switchstands.
Weir Frog Co., Cincinnati, O

Tackle Blocks. (For Wire or Manila Rope.)
Broderick & Bascom Rope Co., St. Louis, Mo.

Talc and Soapstone Powders.
Georgia Talc Co., Ashville, N. C.

Tanks (Iron and Steel.)
American Bridge Co., New York, N. Y.
American Water Softener Co., Philadelphia, Pa.
Caldwell Co. Inc., W. E., Louisville, Ky.
Casey-Hedges Co., Chattanooga, Tenn.
Chattanooga Boiler & Tank Co., Chat'n'ga, Tenn.
Chicago Bridge & Iron Works, Chicago, Ill.
Coatesville Boiler Works, Coatesville, Pa.
Cole Mfg. Co., R. D., Newnan, Ga.
Des Moines Bridge & Iron Co., Des Moines, Ia.
Dixie Culvert & Metal Co., Atlanta, Ga
Hartley Boiler Works, Montgomery, Ala.
Hendricks Mfg. Co., Carbondale, Pa.
Keeler Co., E., Williamsport, Pa.
Lombard Iron Works, Augusta, Ga.
Lookout Boiler & Mfg. Co., Chattanooga, Tenn.
Memphis Steel Construction Co., Memphis, Tenn.
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.
Schofield Iron Works, Macon, Ga.
Southern Boiler & Tank Works, Memphis, Tenn.
Struthers-Wells Co., Warren, Pa.
Tennessee Metal Culvert Co., Nashville, Tenn.
Twin City Boiler Works, Bristol, Va.-Tenn.
Virginia Bridge & Iron Co., Roanoke, Va.
Walsh & Weidner Boiler Co., Chattanooga, Tenn.

Tanks. (Wood.)
Caldwell Co., Inc., W. E., Louisville, Ky.
Davis & Son, G. M., Palatka, Fla.

Tapes. (Measuring.)
Lufkin Rule Co., Saginaw, Mich.
Starrett Co., L. S., Athol Mass.

Telephones. (Supplies, Equipment.)
Piedmont Electric Co., Asheville, N. C.
Western Electric Co., New York, N. Y.

Telephone Service.
American Telephone & Telegraph Co.

Terra-Cotta. (Ornamental.)
Atlanta Terra-Cotta Co., Atlanta, Ga.
Pomona Terra-Cotta Co., Pomona, N. C.
Southern Building Material Co., Norfolk, Va.
Stevens' Sons Co., H., Macon, Ga.

Threshers.
Cardwell Machine Co., Richmond, Va.

Tiering Machines. (Portable.)
Economy Engineering Co., Chicago, Ill

Tile (Drain)
Oconee Brick & Tile Co., Milledgeville, Ga.

Tile (Interior)
Amer. Enam. Brick & Tile Co. New York, N. Y.

Important Information For Advertisers in Manufacturers Record

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When proof is required, two weeks in advance.
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Four columns to page.

TYPOGRAPHICAL ARRANGEMENT

We desire to use, as far as possible, uniform display type and borders and avoid the use of black background cuts. The uniform border is two-point plain rule for all spaces less than a full page.

Copy for advertisements other than those to be used in special departments should be prepared for two-column measure for spaces less than a quarter page; for a quarter page or larger, in two or four columns.

Tile. (Mantel and Promenade.)
Hood Brick Co., B. Mifflin, Atlanta, Ga.

Tile (Structural)
Oconee Brick & Tile Co. Milledgeville Ga

Timbers. (Creosoted.)
American Creosote Works, New Orleans, La.
Republic Creosoting Co., Indiadapolis, Ind.

Tin and Terne Plates.
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Tobacco Machinery.
Buckeye Iron & Brass Works, Dayton, O
Cardwell Machine Co., Richmond, Va.
Grote Mfg. Co., F., Evansville, Ind.

Tools. (Machinists'.)
Holland Mfg. Co., Erie, Pa.
Morse Twist Drill & Mch. Co., New Bedford, Mass.

Tools. (Mechanical.)
Starrett Co., L. S., Athol, Mass.

Tools. Pneumatic.)
Chicago Pneumatic Tool Co., Chicago, Ill.

Torches.
Wall Mfg. Supply Co., P., Allegheny, Pa.

Towers. (Electric Transmission.)
American Bridge Co. of New York, N. Y.
Scaife & Sons Co., Wm. B., Pittsburgh, Pa.

Towers. (Steel and Wood.)
Caldwell & Co., Inc., W. E., Louisville, Ky.
Chattanooga Boiler & Tank Co., Chat'n'ga, Tenn.
Chicago Bridge & Iron Works, Chicago, Ill.
Cole Mfg. Co., R. D., Newnan, Ga.
Des Moines Bridge & Iron Co., Des Moines, Ia.
Memphis Steel Const. Co., Memphis, Tenn.
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.

Track Material. (Steam & Industrial Railroads.)
Conley Frog & Switch Co., Memphis, Tenn
Upson Nut Co., Cleveland, O.

Traction Engines.
Fairbanks-Morse & Co., Atlanta, Ga.
Holt Mfg. Co., inc., The, Peoria, Ill.

Tramway. (Overhead.)
Ambursen Co. (Tramway Department), New York, N. Y.
Speidel, J. G., Reading, Pa.

Tramways. (Portable.)
Ambursen Co. (Tramway Department), New York, N. Y.

Tramway. (Wire Rope.)
Ambursen Co. (Tramway Department), New York, N. Y.
American Steel & Wire Co., Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis, Mo.
Caldwell & Sons Co., H. W., Chicago, Ill.
Link-Belt Co., Philadelphia, Pa.
Waterbury Co., New Yorx, N. Y.

Transformers.
Triumph Electric Co., Cincinnati, O.

Trench Excavator. [See Excavator (Trench.)]

Trucks. (Dry Kiln.)
Moore Dry Kiln Co., L., Jacksonville, Fla

Trucks. (Platform, Freight, Mill, Factory, etc.)
Chase Fdry. & Mfg. Co., Columbus, O

Trucks. (Storage Battery Auto.)
Westinghouse Machine Co., Pittsburgh, Pa

Trust Companies. [See Bankers and Brokers.]

Tubes. (Boiler.)
Allegheny Steel Co., Pittsburgh, Pa
Cincinnati Iron & Steel Co., Cincinnati, O
National Tube Co., Pittsburgh, Pa.

Tube Well Strainers.
Cook, A. D., Lawrenceburg, Ind.

Tubing.
La Belle Iron Works, Steubenville, O.
National Tube Co., Pittsburgh, Pa.
Youngstown Sheet & Tube Co., Youngstown, O

Turbines. (Hydraulic.)
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Davis Foundry & Machine Wks., Rome, Ga
Leffel & Co., James, Springfield, O.
Salem Foundry & Machine Wks., Salem, Va.
Smith Co., S. Morgan York, Pa

Turbines. (Steam.)
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
General Electric Co., Schenectady, N. Y.
Sturtevant Co., B. F., Hyde Park, Boston, Mass.
Terry Steam Turbine Co., Hartford, Conn.
Western Electric Co., New York, N. Y.
Westinghouse Machine Co., Pittsburgh, Pa.

Turn Buckles.
Broderick & Bascom Rope Co., St Louis, Mo.

Turntables.
American Bridge Co., New York, N. Y.
Virginia Bridge & Iron Co., Roanoke, Va

Twine.
Columbian Rope Co., Auburn, N. Y.

Unions.
Dart Mfg. Co., E M., Providence, R. I.
National Tube Co., Pittsburgh, Pa.

Upholstering Material. (For Auto's & Furniture)
Du Pont Fabrikoid Co., Wilmington, Del.

Vacuum Cleaning Apparatus.
King Co., F. E., Norfolk, Va.
United Electric Co., The, Canton, O

Valves.
Bourbon Copper & Brass Wks. Co., Cincinnati, O.
Columbian Iron Works, Chattanooga, Tenn.
Frick Co., The, Waynesboro, Pa.
Glamorgan Pipe & Fdry Co., Lynchburg, Va
Jenkins Bros., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
National Tube Co., Pittsburgh, Pa.
Powell Co., Wm., Cincinnati, O.
Pittsburgh Valve Fdry. & Const. Co., Pittsburgh, Pa.
York Mfg. Co., York, Pa.

Valve Boxes.
Clark Co., H. W., Mattoon, Ill

Varnish.
Berry Bros., Inc., Detroit, Mich.

Veneer Machines.
Titus, E. E., Petersburg, Va..

Venetian Blinds.
Wilson Corp., J. G., New York, N. Y.

Ventilating Apparatus. (Engineers' and Contractors'.)
Buffalo Forge Co., Buffalo, N. Y.
Sturtevant Co., B. F., Hyde Park, Boston, Mass.

Vises
Holland Mfg. Co., Erie, Pa.

Wagons. (Dump.)
Acme Wagon Co., Emigsville, Pa.
Western Wheeled Scraper Co., Aurora, Ill.

Wagon Unloaders.
Bonney Supply Co., Rochester, N. Y.

Wall Coping.
Southern Sewer Pipe Co., Birmingham, Ala.

Wall Plugs. (Galvanized.)
Niagara Falls Metal Stamping Works, Niagara Falls, N Y
The Van Dorn Iron Works Co., Cleveland, Ohio.

Wall Ties.
Niagara Falls Metal Stamping Works, Niagara Falls, N. Y.

Washers. (Graphite and Bronze, Oilless.)
Graphite Lubricating Co., Bound Brook, N J.

Washers. (Ore and Phosphate.)
Bailey-Lebby Co., Charleston, S. C.
Cameron & Barkley Co., Charleston, S. C.
McLanahan-Stone Mach. Co., Hollidaysburg, Pa.

Washers and Rivets. [See Bolts, Nuts, Rivets Studs and Washers.]

Watchman's Clocks.
Watchman's Clock & Supply Co., New York, N. Y

Water Filters. (See Filters, Water, etc.)

Waterproofing. (For Brick, Concrete, Granite, etc.)
Aquabar Co., The, Philadelphia, Pa.
Barrett Mfg. Co., Philadelphia, Pa.
Johns-Manville Co., H. W., New York, N. Y.

Water-Softening Apparatus. (Purifying.)
American Water Softener Co., Philadelphia, Pa
International Filter Co., Chicago, Ill.
N. Y. Cont. Jewell Filt'n Co., New York, N. Y.
Tucker & Laxton, Charlotte, N. C.

Water-Wheels. [See Turbines. (Hydraulic.)

Water-Works Supplies and Appliances.
Allen-Scales Engineering Co., Inc., Nashville, Tenn.
American Cast Iron Pipe Co., Birmingham, Ala.
American Pipe & Constr. Co., Philadelphia, Pa
Bourbon Copper & Brass Wks. Co., Cincinnati, O.
Clark Co., H W., Mattoon, Ill.
Clow & Sons, James B., Chicago, Ill
Coldwell-Wilcox Co., Newburgh, N. Y.
Columbian Iron Works, Chattanooga, Tenn.
Donaldson Iron Co., Emaus, Pa.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Keystone Pump & Well Engine Co., Beaver Falls, Pa
Layne & Bowler Co., Houston, Tex.
Massillon Iron & Steel Co., Massillon, Ohio
Pomona Terra-Cotta Co., Pomona, N. C.
Salem Fdry. & Machine Works Salem, Va.
Standard Spiral Pipe Works, Chicago, Ill.
Stevens' Sons Co., H., Macon, Ga.
U. S. Cast Iron Pipe & Fdry. Co., Burlington, N. J
Wood & Co., R. D., Philadelphia, Pa.

Welding. (Oxy-Acetylene Process.)
Prest-O-Lite Co., Inc., The, Indianapolis, Ind.

Welding Plants. (Oxy-Acetylene.)
Milburn Co., Alex. N., Baltimore, Md.

Welding Apparatus. (Oxy-Acetylene Process.)
Prest-O-Lite Co., Inc., The, Indianapolis, Ind.

Well Contractors. (Oil, Artesian, etc.)
Cook, A. D., Lawrenceburg, Ind.
Hughes Specialty Well Drill Co., Charleston, S. C
Stotboff Bros., Flemington, N. J.

Well Tools and Supplies.
Cook, A. D., Lawrenceburg, Ind.
Keystone Pump & Well Engine Co., Beaver Falls, Pa
Williams Bros., Ithaca, N. Y.

Wheels and Axles.
Electric Wheel Co., (Mfrs.), Quincy, Ill.
Oliver Mfg. Co., W. J., Knoxville, Tenn

Wheelbarrows and Carts.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Window Frames and Sash. (Fireproof.)
Detroit Steel Products Co., Detroit, Mich
Edwards Mfg. Co., The, Cincinnati, O.
Wagner's Sons Co., J. F., Louisville, Ky.

Window Frame Machinery.
Phillips Mfg. Co., Orlando, Fla.

Window Guards. (Wire.) [See Wire Goods.]

Windmills.
Caldwell Co., Inc., W. E., Louisville, Ky.

Wire. (Barbed Wire, etc.)
American Steel & Wire Co., Chicago, Ill
Cyclone Fence Co., Waukegan, Ill.
Roebling's Sons Co., John A., Trenton, N. J.
Youngstown Sheet & Tube Co., Youngstown, O

Wire. (Galvanized and Annealed.)
American Steel & Wire Co., Chicago, Ill
Gulf States Steel Co., Birmingham, Ala.

Wire. (Galvanized Telephone.)
American Steel & Wire Co., Chicago, Ill.
Gulf States Steel Co., Birmingham, Ala.

Wire. (Plain Steel, Hoop, etc.)
Gulf States Steel Co., Birmingham, Ala.

Wire Cloth. (Iron, Steel, Brass, etc.)
Caldwell & Sons Co., The, H. W., Chicago, Ill.
Eureka Supply Co., Chattanooga, Tenn.
Meyers Mfg. Co., The Fred J., Hamilton, O.
New Jersey Wire Cloth Co., Trenton, N. J.

Wire Goods.
Bolles Iron & Wire Wks., J. E., Detroit, Mich
Dow Wire & Iron Works, Louisville, Ky.
Dufur & Co., Baltimore, Md.
Dufur, Baggott & Co., Baltimore, Md.
Meyers Mfg. Co., The Fred J., Hamilton, O
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Wood Distillation.
Struthers-Wells Co., Warren, Pa.

Wood Pipe (For Water, etc.)
Wyckoff & Son Co., A., Elmira, N. Y.

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Barrett Mfg. Co., Phila., Pa.
Reeves Co., The, New Orleans, La.

Woodworking Machinery.
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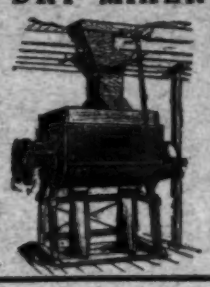

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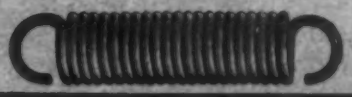

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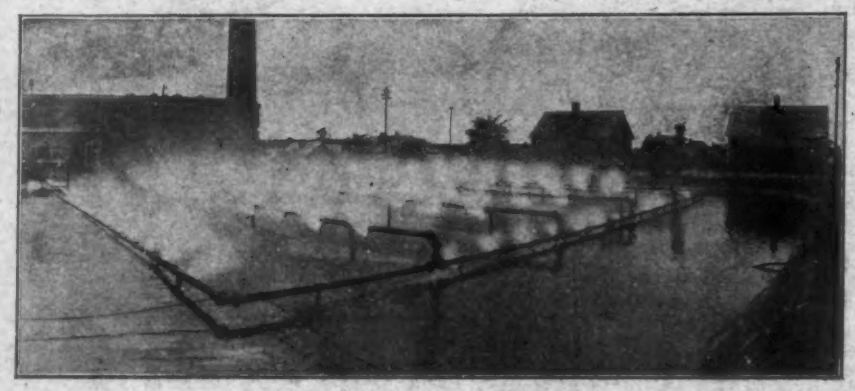

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